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TEACHERS' MANUAL

FOR THE

Elementary Schools of South Carolina

Prepared for the State Department of Education
by W. K. Tate, State Supervisor of
Elementary Rural Schools

Issued by J. E. Swearingen, State Supt. of Education, 1911

This Official Manual Should be Carefully Preserved by Teachers and School Officers. The Edition Will be Limited

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Columbia, S. C.
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1911

To Teachers and School Officers of the State:

This Manual is offered to teachers and school officers in the hope that it may promote the progress and increase the efficiency of the free public schools. It is the property of the State and should be carefully preserved.

The elementary schools form the basis of any educational system. In them the majority of the pupils are enrolled and the largest number of teachers are employed. If this Manual helps to induce a better understanding of school needs and school methods the aim of the author and of the Department will be fully met.

Yours respectfully,

J. E. SWEARINGEN,
State Supt. of Education.

Columbia, S. C., September 18, 1911.

Hon. J. E. Swearingen, State Superintendent of Education, Columbia, S. C.

Dear Sir: I have the honor to transmit herewith the manual for the Elementary Schools, prepared in accordance with your request and the suggestion of the State Board of Education. In the preparation of this manual I have not strained after originality, but have made free use of current educational thought and good material whenever it has come to my attention. I have found the State Manuals of Wisconsin and North Carolina especially suggestive. Especial acknowledgments are also due to Miss Leila A. Russell and Miss Sarah Withers, of Winthrop College; to Superintendent S. H. Edmunds, of Sumter; to Prof. Patterson Wardlaw and Prof. L. T. Baker, of the University of South Carolina; to Dr. J. LaBruce Ward, of the State Department of Health, and to Mr. B. A. Wharton, of the State Insurance Department, for the special contributions under their names, and to these and Mrs. Hetty S. Browne and Dr. J. P. Kinard, of Winthrop, for other valuable suggestions. I am especially indebted to Dr. Patterson Wardlaw, of the University of South Carolina, who has read the manuscript and has freely given the benefit of his wisdom and experience, and to Dr. Reed Smith, of the University of South Carolina, who has made a critical reading of the proof.

Respectfully,

W. K. TATE,

State Supervisor of Elementary Rural Schools.

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TEACHERS' MANUAL

A Word to City Teachers

BY S. H. EDMUNDS

Superintendent of the Sumter Schools

I have been asked to write a word to the teachers in the city schools. I cheerfully comply, for I am sure that in writing to them I shall at the same time be writing to the teachers of all schools. In addition to this, I am given an opportunity to say to the teachers of the city schools, town schools and country schools that a most careful study of this manual will be amply repaid by the benefit that one will thus receive. The author was for many years principal of a Normal School, and for several years assistant superintendent of a system of city schools. He is thus able to speak with authority to teachers in all elementary schools.

It is very desirable that teachers should know what other teachers are doing. It is generally supposed that those who teach in city schools have an advantage on account of having a very much simpler schedule of studies. Assuming this to be true, it should be at once an inspiration and a spur for teachers in cities to realize how much is expected of those who teach in the country.

A greater effort is being made to harmonize the work in all the elementary schools. Many of the city schools will use the books recently adopted, and this will tend to unify the courses of study. In order that this unification may be more complete, it behooves the teachers to study the manual of the elementary schools as well as that of the high schools, so that each may know what the other is doing.

In a graded school each grade is a link, and the tenacity of the whole chain depends upon the strength of each link. If every teacher would get this conception of her duty firmly fixed, her ambition would be kindled to see to it that there should be no weakness on account of her inefficiency. In a school there should always be the most perfect "team-work." This is certainly no

place for jealousy. On the contrary, there should be at all times the most perfect loyalty—loyalty towards one's official head and towards one's coadjutors. There is nothing so unbecoming in a teacher as littleness, and nothing so little as to be always on the lookout for some act that may be construed as a reflection upon one's dignity or ability. This produces disaffection, which grows into criticism, and the resultant is dissension. Avoid it as a mariner avoids some hidden rock. Cultivate a bigness of soul that will look upon school as an opportunity to develop the larger things of life. In no school can there be effective service without harmony, and no harmony unless one is willing to subordinate self in order that the school may progress and the pupils prosper. There is no finer field for professional fidelity than the school room: that virtue—for it is a virtue—which makes one's attitude towards one's pupils that of a kindly helper, one's attitude towards one's co-workers that of a friendly co-operation, one's attitude towards one's official head that of unyielding loyalty. It is this virtue that finds its fruition in those words that issued from sacred lips: "And as ye would that men should do to you, do ye even so to them."

I have said that the whole system depends upon the strength of the individual grade. I will go further and say that the whole profession depends upon the ability of the individual member. Men judge a profession by the fitness of those who follow it. It is incumbent upon us, therefore, to examine ourselves, to exercise daily introspection—not that introspection which makes one melancholy, morbid and morose; but that self-examination which determines whether or not in scholarship, ability to teach, ability to govern, and in character, we measure up to the standards which men have a right to set up for the adherents of so great a profession.

All of us need that breadth of view and catholicity of spirit that come only from wider knowledge and deeper sympathy. A manual such as this is one means of securing such knowledge. We do ourselves an injustice if we slight it; if we study it we learn what others are doing, and thus have a greater desire to do more for ourselves, more for our school, and more for our profession

A Special Message for the Country School and Its Friends

The country has always been, and will always be, the basis of national prosperity and the source of national power. If the city with its wealth, its culture, and its complex social institutions is the flower of civilization, the country must always be the sturdy plant which bears it. The country is the source of the world's supply of food, clothing, shelter, and the raw materials of industry. The fundamental wants of man are supplied by the country and anything which touches and influences, either favorably or unfavorably, the development of the farm affects fundamentally the whole social and economic structure.

For two decades the trend of American thought and activity has been toward the development of the manufacturing and commercial industries. The best ability of the nation has been concerned with the building of railroad systems and manufacturing enterprises, and with the organization of those immense aggregations of capital which have made American enterprise and inventive genius the admiration of the world. This development has been accompanied by a great exodus from the country and a concentration of population in manufacturing centers. During the last five years we have just awakened to a realization of the fact that this movement has disturbed the balance between the country and the city. The increasing cost of farm products has turned the attention of the whole nation to the economic importance of the man on the farm. The insistent cry, "back to the farm," is a deliberate attempt to restore the balance which has been so seriously disturbed.

The country has always been the source of physical vitality in the race. The human organism has been evolved through untold centuries of life in the sunshine and the open air and the daily struggle with the primitive forces of nature. The normal environment for the child and the grown-up man is not the paved streets of the city and the confined air of the counting room, but rather the freedom of the open fields and the wholesome physical activity of the country. The very muscles of our eyes have been adjusted by nature to distant vision, and the strain of convergence and accommodation comes only when we direct our gaze to the object which is close at hand. The very existence of the city itself

demands a constant recruiting of its population from the farm. The families of the country are usually larger than those of the city, and must continually take the place of those who have gone down under the stress of physical conditions to which the human organism has not yet adapted itself.

The country is the great source of intellectual ability in the race. This is readily seen by the examination of a roster of men who have attained distinction in the business and professional life of the city. It has been estimated that three-fourths of the successful business men in our great cities have spent their early lives on the farm. The same thing is true in a more marked degree for the professional classes. The teachers, the ministers, the lawyers, and the statesmen of the United States have, in most cases, been brought up in the country. There are many reasons for this state of affairs. It is partially to be explained by the superior physical vitality of the country boy. Then, too, he has been accustomed from early childhood to definite tasks which he must perform with faithfulness and regularity. He has usually acquired the ability to do conscientiously even the disagreeable task. He has been reared in a simple environment, in the presence of ideas which he can understand. The experiences to which he has been accustomed are the great common experiences of humanity and furnish the fundamental ideas for the interpretation of all life and all literature. He has been accustomed to understand thoroughly the simple environment in which he has moved, and has thus acquired the habit of getting at the bottom of things. The city boy has grown up in a very complex environment. It has been impossible for him to understand thoroughly the complicated industrial, commercial, and social life in which he has moved. He must content himself with a superficial view of this life which, like the law of gravitation, has become so common as to lose the power to provoke inquiry or investigation. The country boy never forgets his first sight of the electric street car. The sparks of electricity popping from the wheels and the trolley provoke in him consuming wonder and a curiosity which is not satisfied until he has acquired a rather comprehensive idea of the operation of the street railway system. He wants to know what a dynamo is, how it is built, how electricity is conducted to the motor, and what happens there. The ordinary city boy has become so accustomed to the electric car that he merely takes it for granted without inquiry. When the

country boy moves to town he sees opportunities to which this superficial acquaintance has blinded the eyes of his city cousin, and achieves a success which would not be possible to one who has had a city training.

The country is the source of moral power in the nation. The country boy is removed from many of the corrupting vices which sap the vitality of the city. His life on the farm has inculcated habits of industry and attention to business, and these are important elements in morality. In his business relations he has been accustomed to deal directly with his fellowmen as individuals, and not merely with corporate bodies without sentiment and soul. Honesty acquires a more vital meaning when it is involved in a transaction between man and man than when it merely involves a relation between one individual and a corporation. The ideals of honor, honesty and responsibility are thus clearly defined in the country boy, and there is in him the tendency at least to carry these ideals over into the more complex life. Religion has maintained a stronger and more vital hold on the country than on the city. It plays a larger part in the life of the individual and of the community.

It is highly important not only for the country itself, but for the city, that these resources be preserved for the nation. National decay has always begun with a degeneration of rural life. The United States can not afford to follow in the footsteps of the nations which are no more.

The Country Exodus.

The statistics of the last census, however, furnish us with abundant material for uneasiness on this score. There is in all parts of the United States a steady exodus from the country to the city. The agricultural exports of the United States show a decrease which sooner or later will seriously disturb the balance of trade. The total increase in population is more than accounted for by the growth of the cities. In South Carolina in 1890 there were thirty-three towns and cities of 1,000 population and over. In 1900 there were forty-four such towns, while in 1910 the number has risen to sixty-nine. In 1905 the white enrollment in the rural schools of South Carolina was 100,553; in 1910 this had decreased to 100,103. In the meantime, the total white school enrollment of the State showed an increase of 16,000 pupils. Five years ago, 71 per cent. of the white children of the State were

enrolled in the rural schools, now only 64 per cent. are enrolled in these schools, which have thus lost 11,000 white children in the five-year period.

The report of the Country Life Commission, appointed by President Roosevelt, gives an admirable account of the various causes which may contribute to this rural exodus. From an actual canvass of the people who have moved from the country to town in some sections of South Carolina, we are driven to the conclusion that the principal cause in this State is the search for better educational and social advantages for the children. The good crops and the favorable prices which have prevailed during the past few years have served only to accelerate the movement. As long as the South Carolina farmer was struggling with poverty and low prices he had little time to think of education. The movement at that period was from the unprofitable farm to the cotton mill village. With the return of agricultural prosperity the ambitious farmer is removing his residence to the smaller towns of the State in order that his children may have satisfactory educational advantages, and is attempting to operate his farm by some tenant system. This frequently means deterioration of the farm itself, and certainly means that the children of the next generation brought up in a town environment will have neither the taste nor the ability to farm as efficiently as did their fathers. The man who goes to town for school advantages is usually a community leader. By his removal the country school loses his patronage and support and still further deteriorates. The country church, of which he was a member, feels his loss and becomes a less potent instrumentality for good. The social life of the community becomes less desirable and this has a tendency to accelerate the movement which has already begun. The country thus drained of its white citizens is occupied almost exclusively by negro tenants, and it then becomes almost impossible to secure a return of the white population to a social environment which has become permanently undesirable. The presence and constant direction of the white race is necessary to anything like efficient farming in South Carolina. The development in any section of an undirected negro peasantry will invariably result in a diminishing productivity of the soil and a corresponding diminution in the general wealth and prosperity.

That the desire for better schools is the chief cause of the farm exodus in South Carolina is further proved by the fact that com-

munities which have succeeded in establishing satisfactory schools not only hold their own, but show a constant increase in population and improvement in country life. There are many such schools in the State. Their presence has brought about in places a ten-fold increase in land values because the community has become attractive as a place of residence. The good teacher and the good school are important business assets of the community.

The Country the Ideal Location for the Elementary School.

It is frequently easier to move one's children to a school which has already been established in the town or city than to secure the development of a satisfactory school in the rural community. It is a mistake, however, to assume that the town is a more desirable location for a school. The country has its greatest advantages in the normal environment and natural activities which are there possible. The child is free from the unwholesome distractions which characterize the life of the city streets. His attention is more easily directed to his studies and he has more time to devote to them. The good rural school allows a flexibility of gradation for which the city superintendents of the United States are now striving in the organization of city school systems. Under the close gradation of the city and the "lock step" movement which it necessitates, the bright pupil is sometimes retarded in his progress, and does not have an opportunity to develop the individuality and the self-reliance which are always desirable. The boy in the country school, however, where there are at least two or three grades of work in the same class-room, has a larger portion of the educational bill-of-fare placed before him at one time, and consequently has the opportunity of making his own ability, rather than the average ability of his class, the measure of his progress. Recent statistics which have been compiled, comparing the efficiency of the city school and even the one-room rural school under a trained teacher, indicate that the pupils of the country school have the greater knowledge and the greater capacity for using it intelligently. The rural teacher should not be dazzled by the splendid buildings, the military organization, the lavish equipment, and the imposing statistics of the city school. These are merely accessories, and alone do not constitute education. She should appreciate her own opportunities, and should realize that the country school possesses elements of power

and efficiency which are coveted by every progressive city superintendent in the United States.

Handicaps of the Rural School.

On the other hand, the rural school is subject to many handicaps which the prospective teacher should realize and face with the determination to overcome them.

The first of these is the difficulty of securing an organized community effort in the country. The isolation of the farmer and his dependence on the forces of nature and his own energy have developed in the average rural community an individualism which does not readily lend itself to the co-operation necessary to a good school. The farmer has been slow in recognizing the school as an institution of democracy. It is sometimes difficult to persuade him that all the people working together can bring greater good to each than any man can secure working for himself alone. Good roads, consolidation of schools, public conveyance of pupils and adequate school support are all easy of solution to the community which has learned the art of co-operation. The lack of co-operative public interest is the greatest impediment to the rural school, and to overcome it requires a constant effort on the part of the teacher. The organization of the social forces of the community will depend largely upon her interest and tact.

To this end the skilful teacher will take an active part in the general community life. Her services will be needed in the church and Sunday school, and she will be a potent factor in the social life of the school district.

The lack of intelligent public interest in education is sometimes brought about by our failure to adapt the school to the conditions and needs of the rural community. The farmer feels instinctively that the thing which the boy learns at school not only does not give him a more enduring interest in the farm and farm work, but actually makes him dissatisfied with the country and leads him to think that the things really worth while are to be found far away from home, and usually in the city. This idea was recently expressed by a farmer who was listening to an educational address in one of the lower counties of South Carolina. He remarked: "You can not educate everybody; somebody has got to do the work." A rural community is quick to respond to any successful effort on the part of the teacher to

vitalize the connection between the school and the efficiency of the farm. At the Jacksonville Conference for Education in the South, Miss Jessie Field, of Page County, Iowa, told how a farmer who had had no interest in the school became its strongest supporter when his dairy business was made profitable through the use of the Babcock Milk Tester in his district school. This adaptation of education to the specific needs of life now challenges the attention of every rural teacher. In it no rules have been evolved for her to follow. It offers the best opportunity for the exhibition of her originality and skill.

In South Carolina at the present time there is nothing which is doing more to develop co-operative interest in education than the County Field Day and the County School Fair. Every county in which one of these celebrations has been held has immediately felt its stimulating effects. Through them the schools soon learn that they are parts of a system. Community enthusiasm is aroused by the success of the school team in the "events" which constitute the exercises of the day. They offer opportunity for the exhibition of school work, especially the products of the school garden, the Boys' Corn Club, and the handiwork of the rural school. It is hoped that before long there can be combined with the County Field Day an award of county diplomas to those who have completed the work of the elementary school.

The third handicap of the rural school is found in the inadequacy of funds for the proper maintenance of the school. The average per capita expended for the education of the children of the United States in 1906 was $25.40. The average for the Southern States was $8.90.

The farmer uneducated in co-operation seems constitutionally opposed to taxation for community effort. The reactionary agitator having observed this weakness, has seized upon it as an easy avenue of access to the farmer's attention and his suffrage, and this reiterated appeal of the self-seeking politician has caused many otherwise sensible farmers to conclude that all taxation is tyranny. The ordinary resident of the town and city in South Carolina, whose property is assessed at 50 per cent. of its market value, willingly submits to a 3, 4, or even 7-mill school tax. The farmer, whose land is assessed at one-tenth of its market value, is too easily persuaded that a 4-mill tax is burdensome. Frequently he does not realize how small his quota of the tax will be, and still more frequently the man who virtually pays no

taxes, and who has the most children to educate, by sheer weight of his ignorance and prejudice, is the most violent opponent of the special tax.

If the property of South Carolina were returned at a fair valuation, the 3-mill tax alone would in most counties produce sufficient revenue to support the public school system. It is *an especial cause of congratulation*, however, that the disposition of the school districts to levy special taxes is becoming more evident each year. Already about half of them have used this device to supplement their school funds, and when the policy has once been adopted it is *rarely* abandoned. The mere suggestion of this special tax by the teacher and an explanation of the method of conducting the election will frequently be sufficient to secure the levy. The School Extension Act, under which the State treasury duplicates the amount raised by special taxation in an amount not exceeding $100, has proved a powerful stimulus in this direction. Every school district in the State in which the regular school funds are not sufficient to continue the school for as much as five months should take advantage of the School Extension Act.

A fourth handicap of the rural school is the lack of adequate supervision. The County Superintendent of Education has too long been regarded as an official who merely keeps the books of the office, makes an annual report to the State Superintendent and approves the pay warrants. We have unwisely fixed the salary of the County Superintendent of Education at a figure which does not enable that officer in many counties to devote all his time to the arduous and important duties of supervision. No county need expect to obtain the undivided service of a trained and experienced superintendent of schools for the $700 which now constitutes the average annual salary of the office in South Carolina. If a city school employing twenty-five trained teachers, concentrated in two or three buildings within walking distance of each other, demands for efficiency the undivided attention of a trained superintendent at a salary of $2,000 per year, how much more is this officer needed in the rural schools of an entire county, scattered over a wide area and employing for the most part untrained teachers, who have little opportunity through intercourse with each other to learn the best methods of conducting a school. Upon the County Superintendent, more than on any other man, rests the responsibility for the efficiency of the school.

His office should at least be equal in dignity and remuneration with the larger city superintendencies of the State. It should be removed at least one more step from county politics, and the superintendent thus left free to develop a consistent program of educational progress for his county.

The County Board of Education should be authorized to appoint such assistants and supervisors as are necessary to give the same attention to the country schools as is now wisely bestowed on the city systems. Every county in the State might profitably employ a supervisor of teacher training to visit and counsel the untrained teachers in their school rooms, to conduct township institutes, to organize local School Improvement Associations, and by other means to give instruction in proper methods of teaching and management. The work of Miss Leila A. Russell in York County is an illustration of what such an officer can accomplish.

The fifth handicap is found in the lack of trained teachers for country schools. The graduates of the colleges and normal schools naturally accept the easier and more lucrative positions which are offered to them in the town and city. While the number of college trained teachers in the country schools is increasing, the majority of country teachers have had few opportunities beyond those afforded by the district school or the rural high school. The State, through her scholarship system, has offered opportunities and incentives to our young men and women who *may possibly* teach. We sometimes forget the devoted band of workers who are now busy in the country schoolhouses of South Carolina. The permanent summer quarter at Winthrop College and the short courses in that institution to be offered to active teachers during the regular school term will be a partial remedy for this condition.

There is a tendency on the part of all of the colleges of the State whose diplomas are recognized for State certificates to offer courses in pedagogy to such of its students as have decided to teach. In many counties the County Teachers' Association, under the direction of the County Superintendent, has developed great efficiency, and attendance upon its meetings has been made compulsory by a resolution of the teachers themselves and by the County Trustees' Association. This plan adopted in Richland, Calhoun and other counties, should become general.

With better supervision and stricter requirements for certification and a State Board of Examiners to pass upon all papers submitted for teachers' certificates, the teaching profession in South Carolina will acquire new power and added dignity. It is easier for a poor teacher to succeed in a city school than in a country school. It is no uncommon thing for the successful country teacher to be called to the city at a larger salary. At some future day it may come to pass that the teacher who has shown her ability under the easier conditions of the town school will be promoted to the more important and the more remunerative country school.

At present the tenure of position in the country schools of South Carolina is too brief to secure anything like efficient work. During the session of 1910-1911 in South Carolina, 63 per cent. of the teachers in the rural schools were teaching for their first term in the position which they held; 23 per cent. were teaching the second term; 8 per cent. the third term, and only 6 per cent. had remained for more than three terms. There are then on the average about 80 per cent. of annual changes in country school positions. Not until this is reduced to about 30 per cent. can we lay claim to anything like satisfactory conditions in our country schools. No teacher can do her best work the first year. It requires time for her to become acquainted with her pupils and to become an integral part of the social life of the community. She owes it to herself to remain long enough in one position to accomplish something definite. The School Board should endeavor to retain their teachers for more than one year, and, as one means to this end, a salary schedule should be adopted under which the remuneration of the teacher would increase with her experience and efficiency.

Teaching a Country School

Getting a Position.

The first task of the prospective teacher is to secure a position. If she has been exceptionally trained for her work, her services may be sought even for the first year. In most cases, however, she will be compelled to hunt for her first position. If she be reasonably happy and successful in this position, it is best to let the second position seek her. In the town and city schools of the State it is the custom for the Superintendent to nominate the teachers. The best County Superintendents of Education in the State have an increasing opportunity and responsibility in the selection of the teachers of the county. It is easier for them to learn the qualifications of prospective teachers than for the district trustees, who have nothing to do with the teachers outside their own district, and have little knowledge of the special needs of the school or the qualifications of the teachers. It is best, therefore, for the young teacher seeking a position to present her case first to the County Superintendent of the county in which she prefers to work.

The teacher may secure her position through a personal visit to the district and a personal soliciting of the trustees. She may secure her school through the recommendation of friends, or through the information obtained from the Teachers' Agency. Before accepting a position the teacher should know the conditions well enough to be sure that she is willing to give the district her best services for at least a year. A definite written contract with the trustees, stating when the school is to open, the length of the term and the monthly salary is an effective safeguard against misunderstandings and is always desirable. A teacher's certificate is necessary to a binding contract. If the teacher is a graduate of a recognized college, she should present her diploma to the County Superintendent or to the State Superintendent, and should receive her certificate thereon. No contract can be legally entered into till this has been done. In all cases, the certificate should be registered with the County Superintendent. Before final acceptance of a position is given, the teacher should make sure that she can secure satisfactory boarding accommodations in the district.

The teacher's success depends largely on her ability to adapt herself to the social customs and ideals of the community in which she works. Dancing, card-playing and frivolity are absolute barriers to success in most country communities in South Carolina. The teacher who begins her career in a country district with the desecration of the Sabbath day, or with a social indiscretion, has already failed. Before accepting a position she should be sure of her willingness to surrender personal indulgence to the public conscience of the community; otherwise she should decline the place.

Preliminary Work.

The teacher should go to the district several days before the opening of school. She should make herself comfortable in her new home, should become acquainted with some of her patrons, and should secure exact information as to the conditions which will surround her work. Failure on the part of pupils to enter promptly at the opening of the school is one of the serious obstacles to success in the country school of South Carolina. The teacher should confer with her trustees, secure the names of all the patrons, and by postal card or personal visit, should let each patron know when the school will open, and should encourage a full attendance on the first day. When she attends church and Sunday school on the day previous to the opening she should enlist the assistance of these agencies in securing a prompt enrollment. We are accustomed in South Carolina to make the closing of the school a great occasion in the district. It is much more important that the opening day should be made memorable by appropriate exercises.

The teacher should, of course, see that the schoolhouse itself is in order and ready for the opening day. She will enlist the co-operation of the district trustees, the School Improvement Association, and the children in an effort to have the building in good repair and thoroughly clean. The weeds which have grown up in the yard during the summer should be cut down, and the grounds made as attractive as possible. Too often in South Carolina the children congregate on the first day at a building which has received no attention since the closing day of school. The floor is dirty, the desks have not been arranged, the window panes are out, the yard has grown up in weeds, and no effort has been made to supply the absolutely necessary facilities

for the opening day. Sometimes the teacher does not leave her home in another part of the county until Monday morning, and arrives several hours after the time for the opening of the session. The disorder which then characterizes the opening day is usually prophetic of the term which is to follow.

A School Room Ready for the Opening.

The schoolhouse itself will usually be built without consulting the teacher. However, it is well for her to have a very definite idea of what the standard classroom is and endeavor to make the room in which she teaches conform as nearly as possible to this standard. The classroom for thirty-five pupils should be twenty-five feet wide and thirty feet long, and the ceiling should be twelve feet high. The principal lighting should come from the left side of the pupil. The windows on this side should be close together to avoid cross shadows. It is also desirable that there should be some windows at the rear of the classroom to insure a better ventilation. There should be no windows in front of the pupil and none on his right side if these can be avoided. The front of the room and the right side should be devoted entirely to blackboards, which should be four feet wide and should be placed twenty-seven inches from the floor. The blackboard should be provided with a chalk rail for holding the necessary crayon and erasers. The windows should be hung on pulleys so that they may be lowered from the top or raised from the bottom for ventilation. If it is possible to do so, the stove should be placed somewhat in one corner of the room so as to avoid breaking up the seating arrangements. A sheet iron screen or jacket surrounding the stove, projecting six inches above the top, and supported by legs so as to come within three inches of the floor, will cause a circulation of the air in the room and will maintain a uniform temperature throughout the room even when placed near one corner. If possible, the room should be provided with a ventilating jacketed stove, such as is described in the rural school building bulletin issued by Clemson College. A copy of this bulletin may be had upon request.

The desks should be fastened to the floor, or to three-inch strips, so that the proper distance may be maintained between them. In many cases in South Carolina School Boards have used poor judgment in purchasing desks. Many buildings are provided only with the larger sizes. School desks run from No. 6,

the smallest, to No. 1, the largest size. The ordinary country school should be provided with 5's, 4's, 3's and 2's. The small desks should be placed on one side of the room and the larger ones on the other side. It is sometimes customary to place the small desks in front and the larger ones behind. This compels a pupil to sit on a high seat with a low desk in front of him, and should be avoided. The size of the desk will be indicated on the iron standard. The spacing distance from back to back for No. 5's is 22 inches; for No. 4's, 24 inches; for No. 3's, 26 inches, and for No. 2's, 28 inches. Any attempt to place desks of varying sizes in line across the room will necessitate an improper posture by the occupants of some of them. The aisles should be about two feet wide and a broad aisle should be left all around the school room. The beauty and attractiveness of the school room will depend largely on the painting and tinting of the walls. In general, green is the best color for the walls of the school room. For rooms in which the lighting is imperfect, a cream is desirable. Blues, reds and yellows should be avoided. The ceiling should be of a very much lighter tint than the walls, because it is desirable that this should reflect the light down upon the books of the pupils.

Every classroom should be provided with a cloak room adjacent to it and sufficiently large to accommodate the hats and cloaks of the occupants. This room should have outside ventilation by a window. It is very unsanitary to pile hats and caps promiscuously in the corner of the classroom. To hang them on the walls of the room itself is unsightly and uses space which should be devoted to blackboards.

If the classroom in which you are to teach does not conform to these standards, your arrangement should endeavor to overcome the worst of its deficiencies, and throughout the year you should have constantly in mind its improvement.

The Equipment of the School Room.

Under the provisions of the South Carolina Library Law, it is easy for a school to obtain a library. If a teacher is unacquainted with the provisions of this Act, full information can be obtained from the State Superintendent of Education. The school library should constitute the first element in the equipment. It should be provided with books adapted to the varying ages and interests of the pupils, and they should be taught to

make free use of it, both during the school hours and at home. In addition to the single books for reading by the individual pupils, and for home circulation, every library should be provided with one or more sets of supplementary readers, which should be used by the teacher to add variety and interest to the reading lesson.

The standard school room should contain a set of good maps, including political maps of the world, the United States. North America, Europe, Asia, Africa and a physical map of North America. It is the most economical in the end to buy these maps in the steel case mountings. The classroom should also contain a good twelve-inch globe, a good dictionary, a call bell, a box of good crayon, a dozen wool felt erasers, two or three blackboard pointers, a clock, a waste basket, and a set of the ordinary measures of length and capacity.

One of the most common sights in the country schools of South Carolina is a pile of wood, and the dust and the dirt which usually accompany it, around the stove in the middle of the room. With such conditions as these it is impossible to keep the school room neat and attractive. It is easy to provide the school with a wood box, and this should be one of the first conveniences to be provided by the teacher and pupils.

If these accessories are not in your school room when school opens, it should be your ambition to see that they are there when it closes.

The School Work Room.

A few years ago Superintendent Stetson, of Maine, advanced the idea that every school room, even for one teacher, should have in connection with it a work room in which practical manual training could be introduced. This work room should be equipped with a saw, hammers, square, planes, chisel, mitre box, a drawing knife, nails, paint brush, putty knife and the ordinary tools of the farm home. For the girls, it should be equipped with a cook stove and simple cooking utensils. It should be so placed that the teacher while conducting her recitations in the main classroom could give it a measure of supervision.

At the Sumter County Field Day last April there were exhibited excellent specimens of axe handles, hoe handles, plow-stocks, brooms and other useful articles which had been made by the school children of Sumter County.

The school work room would give opportunity for the development of manual skill along these and other practical lines. It would enable the teacher to make minor repairs to the schoolhouse, such as putting in window panes, repairing steps, making shelves, providing apparatus for the playground, and even for painting the building. Such a room would teach the use of the common tools of the farm. Best of all, it would relieve the long intervals between recitations which characterize the one-room school in the country. The discipline of the country school, which is usually such a source of vexation, would be improved and pupils would find in the manual work a new source of interest.

The School Grounds.

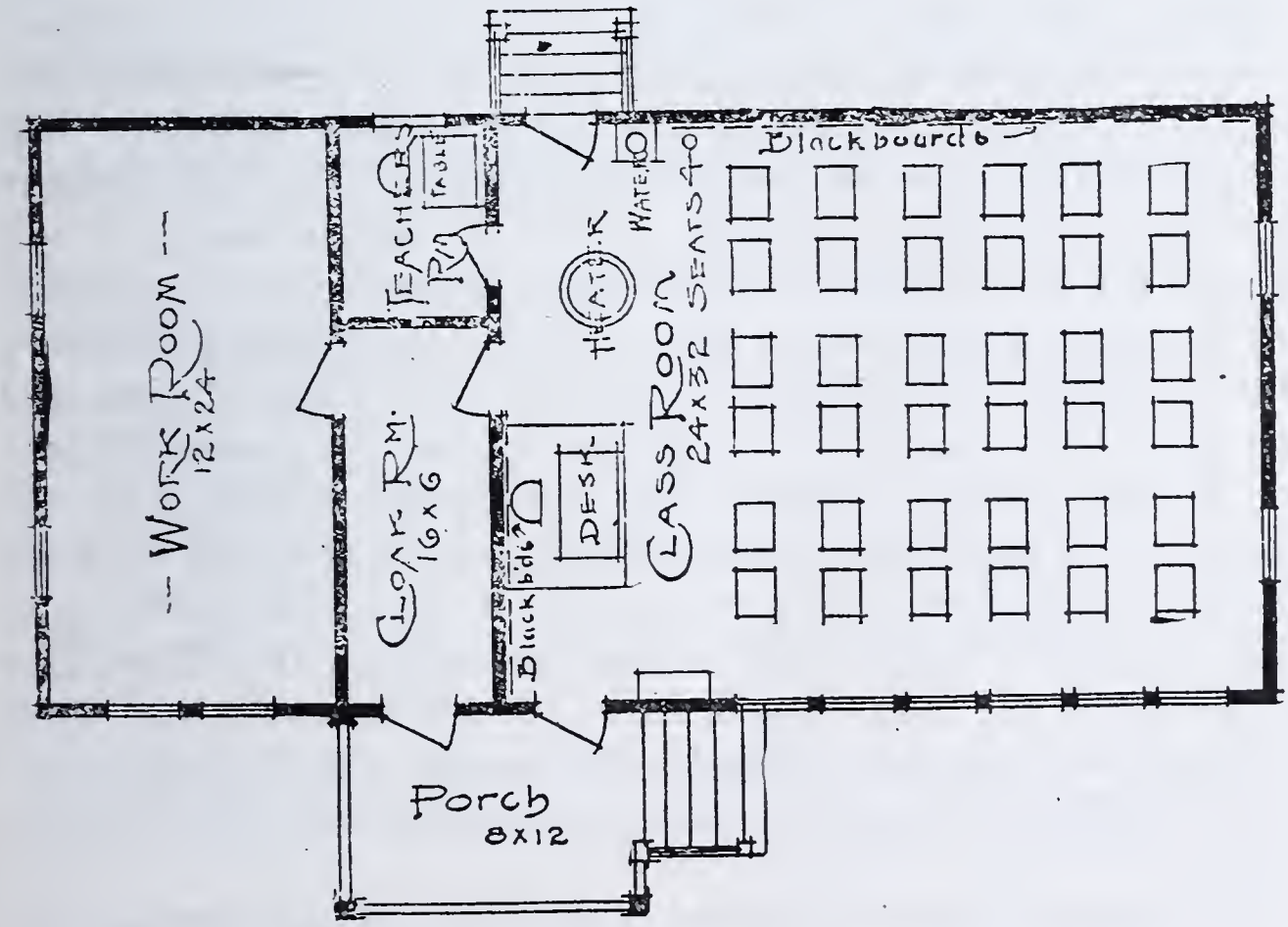
The school grounds should also receive your earnest attention and consideration. It is not to the credit of the rural schools of South Carolina that so many of them are unprovided with any kind of privy. This negligence is not conducive to morality, decency or good health. The end of your first school term in a community should see this defect remedied. Complete plans and specifications for the sanitary privy may be obtained by addressing a communication to the State Board of Health in Columbia.

The playground is an essential part of the school equipment. Some of the most enduring lessons of youth are learned on the playground, and the teacher who provides for healthy, wholesome play and gives to this the proper supervision, will escape many vexations and be rewarded with a higher type of work by her pupils.

The schoolhouse is frequently situated on a barren spot, and the surroundings are devoid of aesthetic appeal. The teacher should celebrate her first Arbor Day in the school community by planting some trees in proper places on the school yard. A hedge, some shrubbery and a few flower beds will add an attractiveness which will be its own reward to teacher and pupil.

Water Supply.

One of the most important subjects to be considered by the teacher at the opening of the session is the school water supply. In the lower sections of the State it is usually possible, at a small cost, to obtain a flowing artesian well. This source of water supply should be utilized wherever it is possible. If the source of



Picture and Plan of Oak Ridge School, York County, After Design 7 Clemson Bulletin. This is a Model House for a One-teacher School

supply is an open well, care should be taken that it is in good condition for the opening of the school term. It is usually neglected during the vacation, and there are strong chances of pollution. The use of the open well with buckets should be discontinued wherever possible, and a pump installed. When the water is brought into the school room it should be served to the pupils in a sanitary manner. The receptacle in which it is placed should be covered and provided with a spigot from which water may be drawn. A stone jar provided with a self-closing spigot may be obtained at a small cost. The ordinary drinking cup is also a common means of communicating contagious diseases. Individual drinking cups should be substituted.

Plan for the Opening Day.

While the teacher is making the building and grounds neat and attractive, and providing for the physical welfare of her pupils, she will not forget to make definite plans for the opening day. This is by far the most important day of the session. "Well begun is half done." The confidence with which the teacher attacks her problems on the opening day of the session will go far towards insuring ultimate control of the whole situation. She should enter school on the first morning with a very definite method of procedure in mind. If she be inexperienced, it will be well for her to make a note of what she expects to accomplish on the opening day, and to plan carefully the order of exercises. This will give her confidence and prevent a waste of time and energy. She should secure from the trustees the teachers' register for the previous session and familiarize herself with the names of the pupils, the grade of each, and the character of work done by each during the previous school year. She should prepare a tentative daily program for the session. It will perhaps be necessary to make modifications of this program, but these changes may easily be made by the teacher who has given the subject sufficient thought to make the tentative schedule of recitations.

The teacher should be in her place early on the opening day to meet the pupils as they come, and to renew the personal acquaintances which she has made during the days of preliminary work in the district. The opening exercises for the first morning should be very simple, and the business of organization should proceed promptly. If a representative of the School Board is

present, he should address the school briefly and introduce the new teacher. Definite work of some kind should be assigned at the earliest possible moment. She should have on hand a few tablets and extra pencils for an emergency. It is best to make the previous year's work the basis for the classification. In the country school the reader used by the pupil will usually be an index to the grade. The teacher will call to the recitation bench all pupils who read the first reader during the previous school year, and will have them read selected passages from the book. In this way she can judge of the ability of the pupils, and will be enabled to determine which to continue in the first reader and which are ready for the second reader. After the teacher has tested the various classes in reading, she should find what other subjects they studied during the previous year, and should ascertain the ground covered in each. At the end of the day it will usually be possible for her to determine what grades she will have represented, and she may then make the necessary modifications in her daily program. She should, however, be sure of her ground, and should not give instructions to pupils to purchase books until she is sure that they are ready for them. A review of two or three weeks in the books of the previous session will usually be very beneficial, even to the more proficient pupils.

Course of Study for Elementary Schools

All books named in the course of study may be secured from any text-book depository in the county or from the Central Text-Book Depository in Columbia.

Any and all cash orders should be filled by the publisher or by The R. L. Bryan Company within three days after receipt. In no case is the purchaser liable for mail or express charges.

For exchange price of books see paster on inside of front cover of texts.

First Grade.

Wheeler's Graded Primer (25c).

Writing at blackboard and at seat with pencil and unruled paper.

(Do not use copy books this year.)

Counting and oral number work. Writing numbers to 100.

Stories by teacher and pupils as basis for language work.

Memorizing short, easy poems.

Oral nature lessons adapted to season and locality.

Singing.

Advanced First Grade.

(In long term schools teachers may find it possible to complete all the work of the first and advanced first grades in one year).

Wheeler's Graded First Reader, basal (25c).

Stepping Stones to Literature, First Reader, supplementary (20c).

Supplementary readings from school library.

Stories and language training.

Memorizing short, easy poems.

Spelling from Reader.

Oral and written number work based on first twenty pages of Milne's Progressive Course, First Book. (The book should not be placed in the hands of the pupils in this grade.)

Writing at seat and blackboard.

(Do not use copy books this year.)

Oral nature lessons adapted to season and suggested by environment.

Singing.

Second Grade.

Wheeler's Second Reader, basal (35c).

Stepping Stones to Literature, Second Reader, supplementary (25c).

Supplementary readings from school library. (Myths, Tales, Fairy Stories and Nature Stories.)

Spelling from Reader and from Progressive Course in Spelling, Book I (13c).

Language work based on reading and stories.

Memorizing easy poems.

Oral and written number work, Milne's Progressive Arithmetic, First Book, Part I (32c).

Berry's Writing Book No. I (5c).

Augsburg's Drawing Book, First Year (15c).

(Applied Arts Drawing Book No. 21, supplementary, 10c).

Oral nature lessons adapted to season and suggested by environment.

Singing.

Third Grade.

Heart of Oak Books, Third Reader, basal (32c).

Stepping Stones to Literature, Third Reader, Supplementary (30c).

Supplementary readings from school library. (Bible, Hero and Nature Stories.)

Language training for ease and correctness in speech.

Memorizing short selections in prose and poetry.

Progressive Course in Spelling, Book I (13c), Section 1 completed.

Milne's Progressive Arithmetic, Book I, Part II, completed.

Berry's Writing Book No. II (5c).

Augsburg's Drawing Book, Second Year (15c).

(Applied Arts Drawing Book No. 22, supplementary, 10c).

Oral lessons in practical Hygiene.

Nature Study and Community Life, with special reference to local industries.

Singing.

Fourth Grade.

Heart of Oak Books, Fourth Reader, basal (35c).

Hill's Fouth Reader, supplementary (35c).

Biographical readings from school library.

Oral and written Spelling, Progressive Course in Spelling, Book I completed.

Withers-Kinard—The English Language, Book I (32c), to page 130.

Maury's New Elements Geography (45c), to page 49.

Arithmetic, Milne's Progressive, First Book completed. (Emphasize mental work, and quickness and accuracy in fundamental operations.)

Ritchie-Caldwell's Primer of Hygiene (35c).

Berry's Writing Book No. III (5c).

Augsburg's Drawing Book, Third Year (15c).

(Applied Arts Drawing Book No. 23, supplementary, 11c).

Observation lessons in community life and activities, and lessons introductory to Agriculture.

Singing.

Fifth Grade.

Heart of Oak Books, Fifth Reader, basal (35c).

Hill's Fifth Reader, supplementary (40c).

Supplementary classics from school library.

Written and oral Spelling, Progressive Course in Spelling, Book II (13c), Section 1.

Withers-Kinard—The English Language, Book I completed.

Milne's Progressive Arithmetic, Second Book (36c), to page 146. (Emphasize mental work.)

Maury's New Elements Geography completed.

White's Beginners' History of the United States (40c).

Berry's Writing Book No. IV (5c).

Augsburg's Drawing Book, Fourth Year (15c).

(Applied Arts Drawing Book No. 24, supplementary, 11c).

School Lessons in Plant Production, based on Bulletin No. 408, United States Department of Agriculture (free).

Singing.

Sixth Grade.

Selections from Riverside Literature Series for Sixth Grade (38c).

Kinard-Withers—The English Language, Book II (44c), to page 86, with frequent exercises in Composition.

Progressive Course in Spelling, Book II, Section 2. (Written and oral.)

Milne's Progressive Arithmetic, Second Book, to page 233.
Maury's New Complete Geography (88c), to page 98. (In connection with Southern States study South Carolina supplement found in Appendix.)
White's The Making of South Carolina (50c).
Ritchie—Primer of Sanitation (40c).
Berry's Writing Book No. V (5c).
Augsburg's Drawing Book, Fifth Year (15c).
(Applied Arts Drawing Book No. 25, supplementary, 11c).
Oral lessons in Agriculture, with practical exercises in School Gardening and Manual Training.
Singing.

Seventh Grade.

Selections from Riverside Literature Series, Seventh Grade (38c).
Withers-Kinard—The English Language, Book II completed, with weekly exercises in Composition.
Written and oral Spelling, Progressive Course, Book II completed.
Milne's Progressive Arithmetic, Second Book completed, including special supplement containing practical problems in Farm Arithmetic. Note—Teachers whose classes complete this book thoroughly before the end of the year may introduce Book III (41c) in the Seventh Grade.
Maury's New Complete Geography.
Thompson's History of the United States (70c).
Wallace's Civil Government of South Carolina (60c).
Duggar's Agriculture for Southern Schools (60c).
Brooks' Story of Cotton, supplementary (60c).
Elementary Cooking for girls (optional).
Berry's Writing Book No. VI (5c).
Augsburg's Drawing Book, Sixth Year (15c).
(Applied Arts Drawing Book No. 26, supplementary, 11c).
Singing.

NOTES.

For Optional Supplementary Reading Above Fourth Grade:
Snyder's Selections from the Old Testament (30c).
Hall's Half Hours in Southern History (75c).
Simms' The Yemasee (68c).
Mims & Payne's Southern Prose and Poetry (65c).

For optional use in written spelling:
Thomas' Spelling Blanks (5c).

Adopted Dictionaries:
Webster's Primary (44c).
Webster's Common School (65c).
Webster's High School (90c).
Webster's Academic $1.35).
Exchange period on old books used from 1906 to 1911 expires December 15, 1912.

USING THE COURSE OF STUDY IN A SHORT TERM SCHOOL.

It will be noted that in dividing the course of study we have used the term *grade* instead of *year*. The length of the school term is such a variable quantity in South Carolina that it would be impossible to base a course of study on the *year* as a unit. The course, as outlined in each grade, will usually be found abundant work for a nine months' school with a capable teacher. If your school runs for six months, the pupils in the third grade should be able to complete about two-thirds of the work outlined. When they return to school next year they should not buy new books and take up the work of the fourth grade, but should continue the work outlined in the third until they have finished it. When this has been done, they should then purchase the new books and begin the work of the fourth grade. With a bright class, a trained teacher will sometimes find it possible to complete the work of the grade in six or seven months. The completion of the work, however, and not the beginning of a new school term, should be the signal for promotion and new books.

In the rural schools of South Carolina I have found an unfortunate tendency to cover ground too rapidly. I find pupils reading in the Second Reader when they should be in the First. I have found them working in percentage when they do not know the multiplication table. I have found them struggling with Latin when the English Grammar is a sealed book of mysteries to them. The teacher who pushes her pupils into books too difficult for them is doing them an incalculable injury. They never feel the confidence and inspiration which come from mastery. Especially in the beginning of a new subject a teacher should move slowly. Every topic mastered adds its quota of strength and encouragement. The pupil who has done a few things well

forms a habit of study which will enable him to master other work with greater ease and rapidity.

At the close of the school year the teacher should leave in the register a written statement showing the grade of each pupil and the ground covered by him in each subject during the year.

The teacher in the country will sometimes meet with requests that pupils be excused from certain subjects offered in the grade. Occasionally we find a parent who asks that his son be allowed to study Arithmetic and Spelling only. This tendency would be discouraged in every way possible. No pupil knows his own capacities and tastes until he has given a subject a fair trial. Convince him that to take only a partial course unfits him to continue the work of the elementary school, to enter the high school, or to enter college. In a few years he will awaken to a realization of his mistake and will have nothing but condemnation for the laxity of a system which allowed him to study what his own untrained inclination prompted.

Record of Pupils' Work.

In the new school register, which has been prepared for the schools of South Carolina, there are blank spaces after the name of each pupil in which his study record for the month in the various subjects should be entered. This estimate may perhaps best be indicated in per cents., 100 denoting perfect, 90 excellent, 80 good, 70 fair, 60 poor, 50 unsatisfactory. In arriving at this estimate the teacher should take into account the work of the pupil in daily recitation and his knowledge as indicated by a written and oral review and test conducted at the close of the month.

Promotion.

To secure promotion when the class has finished the work of the grade, a pupil should secure an average of at least 65 per cent., and should not fall below 50 per cent. in any subject.

Reports to Parents.

It will add greatly to the parent's interest in the progress of his children if a report of their work is sent to him at the end of each school month. This report should be a copy of the grades entered in the register, and, in addition, should show how many times the pupil has been absent and how many times he has been

tardy. It is hoped that the County Superintendents of South Carolina will consider the printing and distribution of a uniform monthly report in the schools of their counties. These incentives are used constantly with excellent results by teachers in the city schools, and there is no reason why the parent in the country should not be informed as to the progress of his children.

County Graduating Exercise.

It is to be hoped that the County Superintendent, County Trustees, and the teachers in the various counties of South Carolina will arrange for awarding county certificates to all pupils of the county who complete satisfactorily the elementary school course. The awarding of these certificates might well constitute one feature of the County Field Day. The certificate should be based on the completion of the work and on the passing of certain examinations prepared by the County Superintendent of Education for the schools of his county. The certificates should secure admission to any county high school. The fact that such a certificate is offered would be an incentive to more regular attendance, to greater efforts in study, and would encourage the more advanced pupils to remain longer in school.

Irregular Attendance.

One of the most serious drawbacks to efficient work and progress in the country schools is the irregularity in attendance. Last year the average daily attendance in the schools of the State was considerably less than 75 per cent. Irregularity in attendance not only makes good work impossible to the irregular student but is almost as great a drawback to the student who attends regularly. His progress is continually impeded by the necessity of retracing his steps for the benefit of those who have been absent. To remedy this evil should challenge the most earnest efforts of the teacher. She should visit the home of the delinquent pupil and should show the parent the fatal consequences of irregularity. Every teacher should have a part in the education of public sentiment towards an attendance law which will give the advantages of a common school education to every child in South Carolina. It would be well for every County Superintendent in the State to award a special certificate at the end of

the year to the students who have not missed a day during the session.

Making a Daily Program.

If a teacher has only one or two grades, it will be comparatively easy to make a daily program, which will provide for each subject indicated in the course of study. It is perfectly evident, however, to one who scans the preceding course, that for one teacher in a country school with seven grades, it will be an absolute impossibility to provide for separate classes in all subjects for every grade. This would necessitate at least forty recitations per day. Such a program would merely dissipate the time and energy of the teacher. Some way must be found to reduce the number of recitations to not more than twenty-five.

Expedients for Reducing Number of Daily Recitations.

1. Simultaneous work by grades. All the writing and drawing lessons may be conducted at the same time. The pupils of several grades may be combined in the story and language work. All grades above the second should usually work in Arithmetic at the same time. After giving necessary explanations to one grade of pupils, seat work or board work may be assigned to its members, while the teacher passes on to explanations and assignment of work in other grades of the school. After having assigned work the teacher throws the student on his own responsibility and merely gives him assistance when it is needed. In this way a 40-minute period will suffice for all the upper grades in Arithmetic.

2. Alternation of years. In the earlier years of the course the work must be taken in order, but in *many subjects* it makes no particular difference whether a pupil takes the fifth grade one year and the sixth grade next, or whether he takes the sixth grade work after he finished the fourth, and fifth on the year following. Both fifth and sixth grades may do the sixth grade work in 1911, and fifth grade work in 1912. In 1911, both may take "The Making of South Carolina," and on the following year may take "The Primary History of the United States." One recitation per day is thus saved. The sixth and seventh grades both read selected English Classics. Certain selections may be used by both grades in one class in 1911, and the others by the two grades in 1912. In the same way the higher grades may be

classified together in spelling. In advanced Geography some educators claim that the United States should be studied first and the rest of the world afterwards; others contend that the year of greatest maturity should be given to the intensive study of our own country. The country teacher can follow one plan in 1911 and the other in 1912, thus combining both sixth and seventh grades in the same class and saving one recitation per day.

Even in Arithmetic some alternation is possible. After a pupil has finished common and decimal fractions, it makes little difference whether he takes up denominate numbers or percentage next. It is possible to give one subject first this year and the other next, and combine the two grades. There are, however, subjects like English Grammar where the logical connection should not be broken.

3. Pupil Assistants.—In country schools frequently there are larger pupils who are willing and who may be trained to assist with the lower classes, and much desk work for primary grades may be turned over for a time to such student assistants. The author of this manual first became interested in teaching as a pupil assistant.

4. Omissions from the Course.—The teacher must arrange her program so as not to slight the essentials. If the devices already mentioned do not reduce the number of recitations to the maximum for good work, she will be compelled to omit entirely the least essential of the subjects. Reading, Writing, Spelling, and Arithmetic should not be allowed to suffer, neither should the general period devoted to nature study, community life, and the awakening of the mind of the pupil to the significant elements in his surroundings. *No one-teacher country school can afford to attempt high school subjects.* To do so is unfair to the elementary pupils.

The suggested division of time and the teacher's programs which are appended hereto are not intended to be compulsory, but are subject to modification to suit the conditions of the individual schools.

SUGGESTED PROGRAM OF RECITATIONS FOR ONE-TEACHER SCHOOL.

Hour.	Time.	Grade.	Subject.
8:45- 9:00	15 min.	All	Opening.
9:00- 9:10	10 min.	1	Primer.
9:10- 9:20	10 min.	1	First Reader.
9:20- 9:35	15 min.	2	Second Reader.
9:35-10:15	40 min.	3-7	Arithmetic.
10:15-10:30	15 min.	1&2	Number work.
10:30-10:40	10 min.	All	Recess.
10:40-11:00	20 min.	6&7	Grammar.
11:00-11:10	10 min.	4	Language.
11:10-11:20	10 min.	5	Language.
11:20-11:35	15 min.	3	Reading.
11:35-11:50	15 min.	4	Reading.
11:50-12:00	10 min.	All	Writing.
12:00- 1:00	60 min.	All	Recess, play, manual training school, gardening, cooking.
1:00- 1:10	10 min.	1	Primer.
1:10- 1:20	10 min.	1	First Reader.
1:20- 1:35	15 min.	5	Reading.
1:35- 1:50	15 min.	6&7	Reading.
1:50- 2:00	10 min.	4	Hygiene.
2:00- 2:15	15 min.	5&6	History.
2:15- 2:30	15 min.	7	History and Civics.
2:30- 2:40	10 min.	1, 2, 3	Language Work.
2:40- 2:50	10 min.	All	Recess.
2:50- 3:10	20 min.	3-7	Spelling.
3:10- 3:20	10 min.	6	Hygiene.
3:20- 3:35	15 min.	4&5	Geography.
3:35- 3:50	15 min.	6&7	Geography.
3:50- 4:00	10 min.	7	Agriculture.

The teacher should always make a program of study for each grade as well as a program of recitations for herself.

THE TWO-TEACHER SCHOOL.

In the elementary school taught by two teachers there should be a clean division of work on the basis of grade. This proposition seems almost too evident for statement, but the author of

the Manual has found numerous schools during the past year in which pupils were divided promiscuously between the two teachers seemingly without reference to grade or common sense. If only seven grades are represented it is usually best for the primary teacher to take the first, second and third grades, and the other teacher the fourth, fifth, sixth and seventh grades. It is folly for a two-teacher school to attempt much high school work. Under no circumstances should more than the eighth grade be offered. Most counties in South Carolina are able to develop a rural high school such as is contemplated by the High School Act within walking or riding distance of all ninth grade pupils. Such pupils should be encouraged to attend these high schools where they can receive attention without detriment to the pupils of the elementary schools.

Suggested Program for a Two-Teacher School.

Primary Grades.

Hour.	Time.	Grade.	Subject.
8:45- 9:00	15 min.	All	Opening.
9:00- 9:15	15 min.	1	Primer.
9:15- 9:30	15 min.	1	First Reader.
9:30- 9:45	15 min.	2	Second Reader.
9:45-10:00	15 min.	3	Third Reader.
10:00-10:15	15 min.	1	Number Work.
10:15-10:30	15 min.	2	Arithmetic.
10:30-10:45	15 min.	All	Recess.
10:45-11:00	15 min.	3	Arithmetic.
11:00-11:15	15 min.	All	Stories and Conversation.
11:15-11:30	15 min.	All	Writing.
11:30-11:45	15 min.	2-3	Spelling and Dictation.
11:45-12:00	15 min.	1	Primer.
12:00- 1:00	60 min.	All	Recess, play, school gardening.
1:00- 1:15	15 min.	1	First Reader.
1:15- 1:30	15 min.	2	Second Reader.
1:30- 1:45	15 min.	2&3	Language Work.
1:45- 2:00	15 min.	All	Stories and oral reading by pupils.
2:00- 2:15	15 min.	All	Drawing.

Hour.	Time.	Grade.	Subject.
2:15- 2:30	15 min.	All	Recess.
2:30- 2:45	15 min.	3	Reading.
2:45- 3:15	30 min.	All	Nature study and manual work correlating with Reading, Number Work and Drawing.
3:15- 3:30	15 min.	All	Hygiene.
3:30- 3:45	15 min.	All	Singing and Memory Gems.
3:45			Dismissal.

At intervals between recitations teacher should direct the seat work of pupils.

Advanced Grades.

Hour.	Time.	Grade.	Subject.
8:45- 9:00	15 min.	All	Opening.
9:00- 9:20	20 min.	4	Reading.
9:20- 9:40	20 min.	5	Reading.
9:40-10:00	20 min.	6&7	Reading.
10:00-10:15	15 min.	4&5	Spelling.
10:15-10:30	15 min.	6&7	Spelling.
10:30-10:45	15 min.	All	Recess.
10:45-11:10	25 min.	4&5	Arithmetic.
11:10-11:35	25 min.	6&7	Arithmetic.
11:35-11:45	10 min.	4	Hygiene.
11:45-12:00	15 min.	All	Nature Study and Agriculture.
12:00- 1:00	60 min.	All	Recess for dinner, play, manual work, school gardening and cooking.
1:00- 1:15	15 min.	4	Language.
1:15- 1:30	15 min.	5	Language.
1:30- 1:45	15 min.	6	Grammar, Language.
1:45- 2:00	15 min.	7	Grammar, Language.
2:00- 2:15	15 min.	All	Writing and Drawing.
2:15- 2:30	15 min.	All	Recess.

Hour.	Time.	Grade.	Subject.
2:30- 2:45	15 min.	6	Hygiene.
2:45- 3:00	15 min.	4	Geography.
3:00- 3:15	15 min.	5	Geography.
3:15- 3:30	15 min.	6&7	Geography.
3:30- 3:45	15 min.	5&6	History.
3:45- 4:00	15 min.	7	History and Civics.

If high school work is attempted in a two-teacher school, it will shorten the recitation periods indicated above. The making of a schedule for a school with three or more teachers is a relatively simple matter. If a school employs three or more teachers, it should usually teach two years of the high school work unless another high school is situated near enough to accommodate the pupils who have finished the elementary grades. Under the State High School Law, a rural school with fifteen pupils above the seventh grade and employing three teachers, one of whom gives all his time to the high school work, may receive State aid in an amount not to exceed $300.00. Rural trustees should endeavor to take advantage of this act whenever it is possible.

Directions and Suggestions for Teaching the Course of Study

READING.

The ultimate basis of all knowledge is the personal experience of the individual. In the acquisition of this basal element every child born into the world must begin civilization anew. In terms of this experience he must interpret the universe and the completeness of his interpretation will depend on the vitality and richness of the fundamental concepts obtained through his own senses by personal contact with nature and society. Since healthy intellectual development demands that his mental images should possess the definiteness and concreteness which alone come from vital personal experience, the first and greatest task of the parent and teacher is to bring the child into living touch with the significant elements in his environment.

It is manifestly impossible for any individual by his own unaided experience to rediscover more than the merest rudiments of the great fund of knowledge. Man has developed a spoken and written language, and through this the knowledge acquired by one generation is transmitted to successive generations, and each of us becomes the potential heir to all that has been before us. Reading is the key to these storehouses of knowledge and rightly ranks first in importance among the studies of the elementary schools. With its two accompaniments, spelling and writing, it is the most serious task of the first four school years. No matter how crowded the daily program, nothing should be allowed to trespass on the reading period. The elementary schools of South Carolina would in most cases gain time and efficiency by doubling the reading period, even though this should make necessary the elimination or postponement of some other subject. We should face frankly the fact that most of our pupils are poor readers. Not only are they unable to stand up before the class and read distinctly and with expression the selections found in their readers, but a few questions will usually develop the fact that the apprehension of the thought is even more hazy than its expression. The process of getting the thought from the printed page is frequently labored, even among the pupils of the upper grades of the elementary schools. It is

no unusual thing to find pupils struggling with problems in arithmetic in which the mathematics is easy enough, but in which the inability of the learner to understand the language of the statement has interposed an almost insurmountable difficulty. Much of the lack of interest and most of the poor work in other school subjects may be traced to the same source—the failure of the pupils to translate the unfamiliar words of the book into clear-cut ideas.

Yet, how often have we seen conscientious teachers slight a reading lesson and hurry into some other subject under the false notion that it was more important, when the truth is that the inability of the pupils to read was making her efforts in the other subject almost fruitless.

The reading lesson is especially important to the country child. His intimate contact with a simple environment has given him a rather definite stock of basal ideas. His vocabulary, however, is usually much more limited than that of the city child, and he frequently fails to make connection between ideas perfectly familiar to him and the words which the book uses to designate these ideas. Recently I visited a school in which an intelligent fourth grade was reading an account of the wanderings of Ulysses. In the story some of the companions of the hero had visited the home of Circe the Enchantress, and had been turned into hogs. Ulysses himself set out to find his men and had also reached the door of Circe's house when he was met by Mercury, who admonished him of his danger and said: "Stop. Dost thou not know that this is the house of Circe the Enchantress, who has changed thy companions into filthy swine, and hast shut them up in a loathsome sty?" Inquiry developed the fact that not one of the class knew the meaning of either "swine" or "sty," although the ideas pig and pig-pen were perfectly familiar to them. The true teacher of reading who deliberately sets about to enlarge the working vocabulary of her pupils will be surprised at the number of common words which are meaningless to them. A pupil will sometimes develop admirable facility in the pronunciation of words which have for him absolutely no significance. We should not be deceived by this. It is said that when Milton became blind, he was accustomed to have his daughter read to him from the books which he loved. Much of his reading was in Latin, and the daughter learned to call the Latin words perfectly without in the slightest degree being able to under-

stand their significance. To Milton himself the language conveyed a lucid meaning. Can we not find many a parallel case in the school rooms of South Carolina?

When a pupil has truly learned to read, that is, when he has acquired the ability in many subjects quickly and surely to translate the printed page into definite concrete mental images, he has a solid basis for an education. The storing of the facts in the memory is a mere detail. Having acquired this ability, many a man has through his own unaided efforts obtained a well-rounded education. *Let us make South Carolina schools famous for their good reading.*

What is Reading?

For many years, perhaps centuries, after the development of language the spoken word was the principal means by which thought was communicated. The spoken symbols representing the ideas of the speaker awaken similar ideas associated with the same sounds in the mind of the hearer. It is evident that each must interpret the symbols in the terms of his own experience. These, however, are similar enough to insure at least a measure of understanding. For the child, as well as the primitive race, the tongue and the ear are the principal means of communicating thought. As Dr. Harris expressed it, "Children and uneducated people are 'ear-minded' ".

With the development of a written language the process of communication becomes radically different. The eye and not the ear becomes the important sense. Certain arbitrary written symbols now stand for the spoken word and the mental image back of it. These symbols awaken similar ideas in the mind of the reader, and thought is communicated as perfectly as the varying experiences of the two individuals will permit. In the process the hand and the eye take the place of the tongue and the ear. We tend to become "eye-minded." In English and the other occidental languages the written symbol stands both for the spoken word and the idea it represents. *In silent reading* we translate the visible written symbols directly into the ideas which they signify. In every day life this silent thought-getting from the printed page constitutes 99 per cent. of all our reading. Ease and facility in doing it are necessary to the enjoyment of reading itself and to success in other studies. To develop

this ability in the greatest measure should at all times be the conscious aim of the teacher.

In *true oral reading* we translate the printed symbols into thought, and at the same time into vocal expression. Oral reading in school is a necessary step in the training for silent reading, is also one of the surest means of stimulating interest in school studies, and throughout life is a constant source of pleasure. To teach the pupils to read aloud with ease, with distinctness, and with proper expression of the thought should be a second conscious aim of the teacher.

We have already referred to the *dead process sometimes called oral reading*, in which the printed word is pronounced aloud but without any apprehension of the idea for which it stands. This is not true reading, and the pupil derives from it the same benefit that Milton's daughter obtained from reading the Latin aloud to her father without any knowledge of the language. The teacher should consciously aim to avoid this worthless and harmful exercise which is found so frequently in our schools.

Training in Silent Reading.

An extended observation of the South Carolina schools convinces me that we are doing very little to train our pupils in silent reading. In many school rooms the pupils seem to be unable to study without moving their lips and whispering the words as they read. This is the natural result of the usual method of teaching reading. In nine-tenths of the classes which I have observed the command of the teacher to read has meant that the pupil should look at the words, move his lips, and pronounce them aloud. Reading has to him no other meaning. When I have said to a pupil, "Look at the sentence and tell me what it says," he is either helpless or will begin the whispering process described above.

Many teachers have the bad habit of calling up the first reader class, one at a time, and of pointing out the words with a pencil as the pupil is expected to call them. This process, if long continued, is absolutely prohibitive of progress in true reading. After reading a page in this way, the pupil is usually unable to state a single thought which has been obtained from it. Moreover, he is forming the very bad habit of using words without thought, and this should be discouraged even with the young.

Of course there is a word-learning stage in every lesson in which there is little reading. To insure true reading the teacher will keep up a constant review of the pages on which the words are familiar. She will let the little reader step out of line, face the class, read the line silently, then look up and tell the class what it says. When one pupil has read a page in this way, another will take his place till the review is completed. This method not only cultivates the ability to get the thought by silent reading, but gives the natural expression for which many teachers struggle in vain. The teacher who has never tried this kind of work will be surprised at the immediate response by the pupils.

In the second and third grades, merely to read the paragraph in the usual way, however well this may be done, will not necessarily develop the ability to read silently. Let the class turn to some review lesson, have them read a paragraph silently, then tell the substance of it. When one has told all he got from the reading, let another supplement as long as anything can be added. If a material point has been omitted, let the class re-read and discover it. In the beginning of this work it will frequently be necessary for the teacher to ask questions in order to ascertain what the pupil has found in the paragraph. After a little training the class should be allowed to read longer selections, or even whole stories, and to give the thought in their own language. Pupils should be encouraged to read special selections from the school library and to tell the story to the class. The skilful teacher can make this exercise take on all the interest of a good game. Its value in language training is too obvious to need special mention. If work of this kind be continued throughout the first four school years, we will have little whisper study left in our schools, and there will be a marked increase in the ability of our pupils to master the other subjects which are now giving us so much trouble.

Training in Oral Reading.

The primary purpose in oral reading is to convey to others who are listening the full, clear meaning of the printed page. Most of the oral reading which we see (the word "see" is used intentionally), seems to have for its object the mere testing of the child's ability to call words. Little attention is given to

his breathing, his enunciation, his expression, the carrying power of his voice, or his ability to hold the attention of his hearers. Most of the characteristics of good oral reading are usually absent. The very nature of the recitation usually militates against the object to be attained. The pupils, especially in the country school, are brought close to the teacher. They read to her and not to the class. All the members of the class have their books open at the selection to be read, thus making good reading unnecessary to their understanding of the story. The pupil who is reading realizes perfectly that his voice can give nothing which his classmates do not already possess, and he is thus left without a lively incentive to make himself understood. The participation of the class in the recitation is usually confined to the picking out of words which he has mispronounced. To be sure, some work of this kind must be done by the teacher as a training in silent reading, but she should carefully distinguish between this and true oral reading for expression. *Expressive reading* should be the last step in the study of a lesson and should frequently be conducted with selections for review. The reader should already have mastered the thought and should be free to give his full attention to its expression. He should be far enough removed from the listening section of the class to insure an incentive to develop carrying power in his voice. The other members of the class should close their books, and their work should consist in indicating by a pre-arranged signal when the voice becomes indistinct or the meaning hazy. Special stories from the library or from supplementary readers should be assigned to the pupils, who should study them carefully and read them to the other members of the class.

At somewhat longer intervals this exercise in oral reading should include the whole school. If the teachers of South Carolina will persist in this kind of training, the readings and recitations which make up our school closing exercises will cease to be the mere pantomime which is so often found at present.

Enlarging the Child's Vocabulary.

When the child starts to school he already possesses a limited spoken vocabulary which he uses with considerable accuracy and effectiveness. His first task is to learn to recognize quickly the written symbols for these words. Before he progresses far, how-

ever, he will meet with other words which he does not habitually use and of whose meaning he is either in complete ignorance, or of which he possesses an incomplete idea. New facts in nature, science, the industries, history, civics, and social relations, will be hidden away in the words of his reader. Occasionally there will be a new word for a familiar idea. To put meaning into these words and make them a part of the child's using vocabulary is an important function of the reading lesson.

It is through reading that we normally enlarge our vocabulary. The dictionary serves merely as a check on the inferences which we draw from the context of the word as we meet it repeatedly in our reading. Through explanation, use in sentences, by synonyms, and by definition, the new word should be made familiar at the time when its meaning will be most easily made clear in the context, and when it is necessary to the full comprehension of the thought. A good reading lesson is necessarily a lesson in nature study, history, civics, geography, agriculture, mythology, or in any other subject whose vocabulary occurs in the selection to be read. If the words "caterpillar" and "butterfly" occur in the first reader, an explanation or observation showing the relation between these two forms of insect life is not merely an interesting diversion, but is necessary to the full meaning of the words. On page 17 of the Wheeler Second Reader, we find the little three stanza selection,

"In the heart of a seed,
Buried deep, so deep,
A dear little plant
Lay fast asleep."

The word "seed" forms a part of the vocabulary of most children. The idea involved, however, is in most cases imperfect. If the teacher in connection with this lesson and the preceding one will have the children examine a seed, find the little plant asleep in it, wake up the plant by placing it between moist blotters, the word would be much richer in meaning to the child. I once heard a class reading a very interesting story of the defense of Bunker Hill. In the selection the words "fortify" and "fortification" occurred frequently. Inquiry developed the fact that not a member of the class understood what it meant to "fortify" the hill. The word should at least call up the mental image of a line of men with picks and shovels digging a ditch and throwing the dirt up into a wall behind which they might be pro-

tected from the bullets of an enemy. Sometimes a single sentence might demand the attention of a class for an entire recitation period. Let the teacher who doubts this statement endeavor in less time to develop a concrete imagery for the Revolutionary slogan, "Taxation without representation is tyranny." We have taught nothing until the words "taxation," "representation," and "tyranny" each calls up a clear mental picture. Each word contains an important lesson in civics. Frequently in the study of a lesson the teacher should stop the reading and ask the pupil to describe the picture called up by a word or group of words. It will be discovered that the brightest children think most concretely, that is, their mental pictures are most clear-cut. Ordinarily we do not stop the train of thought long enough to translate each word into its mental image, but clear and confident thinking demands that we should be sure of our ability to do this when we wish.

We can not hope to do any considerable part of the child's reading during the regular recitation period. If we awaken his interest and give him a method and motive for his individual reading, and then supply him through the school library with good books adapted to extensive reading, we may rest confident in the final result.

We can not depend on the study of the dictionary to enlarge the using vocabulary to any considerable extent. This has a very definite place in determining pronunciation, in discriminating between the finer shades of meaning in familiar words, and in the definition of words wholly unfamiliar. The pupil should be taught definitely how to use the dictionary. A copy of the pamphlet entitled, "How to use the Dictionary," published for free distribution by G. & C. Merriam, Springfield, Mass., should be in the hands of every teacher.

Reading when properly taught, with due attention to the word content, will give the pupil an introduction to the subject matter of the other school studies, and those sudden and terrifying plunges into unknown depths which now characterize our school work will no longer be necessary.

Supplementary Reading.

The reading of the children should by no means be confined to the adopted Readers. The pupils should not be required to purchase unauthorized books, but the school library should be

supplied with books suited to all grades, and by special assignment and otherwise the children should be encouraged to read books adapted to their interest and understanding. In every school library there should be one or more sets of supplementary readers which may be placed in the hands of the class to develop ability in sight reading, and to add variety to the work. These sets of supplementary readers may be obtained as one of the annual additions now provided for by the State Library Law. When the regular readers have become hard for the class, it will awaken new interest and give fresh courage to them to turn to easier portions of the supplementary readers and enjoy the stories.

Suggested Supplementary Reading for the Elementary Grades.

Third Grade.

Baldwin: Fifty Famous Stories Retold.
Defoe: Robinson Crusoe (abridged and simplified form).
Dopp: The Early Cave Men.
Dopp: The Tree Dwellers.
Eggleston: Stories of Great Americans for Little Americans.
Scudder: Verse and Prose for Beginners.
Shaw: Big People and Little People of Other Lands.

Fourth Grade.

Grimm's Tales.
Kipling: Just So Stories.
Scudder: Fables and Folk Stories.
Sewell: Black Beauty.
Wyss: Swiss Family Robinson.

Fifth Grade.

Arabian Nights.
Baldwin: American Book of Golden Deeds.
Brown: In the Days of Giants.
Harris: Uncle Remus.
Page: Two Little Confederates.
Scudder: Book of Legends.
Stevenson: Child's Garden of Verses.

Sixth Grade.

Defoe: Robinson Crusoe. (Larger Edition.)
Hawthorne: Wonderbook.
Hall: Half Hour in Southern History.
Kingsley: The Heroes.
Longfellow: Hiawatha.
Ruskin: King of the Golden River.

Seventh Grade.

Ayrton: Child Life in Japan.
Barbour: For the Honor of the School.
Bolton: Lives of Girls Who Became Famous.
Church: Stories from Homer.
Kipling: Jungle Book.
Mims & Payne: Southern Prose and Poetry.
Simms: Yemassee.
Snyder: Selections from the Old Testament.

PRIMARY READING.

The principal aims of the first year in reading are:

1. To teach the child to recognize at sight a small vocabulary of written or printed words.

2. To teach him to read with correct expression short sentences containing these words.

3. To develop an ability by means of sound symbols to learn new words for himself.

We still find teachers in South Carolina who use the old alphabetic method, that is, they teach the names of the letters first and try to teach the pupil to pronounce the word by calling over the names of the letters composing it. There are many valid objections to this order of procedure.

1. The letter is without meaning or association in the mind of the child and possesses no intrinsic interest.

2. The name of the letter gives only a slight key to its sound. The names of the letters composing the word C-A-T when blended together make see-a-tee, and not our familiar "cat." I have seen pupils during the past year who have called the letters on many pages in the First Reader, but who could not read the first page of the book.

3. The concentration of the attention on the letters rather than on the word itself tends to produce slow, expressionless reading.

4. The alphabetic method renders the assignment of seat work to beginners difficult.

5. All modern text books are based on the assumption that the word method will predominate in the teaching. We shall assume that the teachers throughout the State will follow the principle on which our readers are designed and will use a combination word-sentence-phonic method.

Simple Material and Apparatus Needed by the Teacher of Primary Reading.

1. A collection of simple toys and objects in which the children are interested—a ball, a box, a doll, a marble, etc. Also a small collection of good pictures.

2. A good blackboard. The reading of the first few weeks should be done principally from words and sentences written on the blackboard by the teacher as they are spoken by the children. The words should not be printed by the teacher, but should be written in the best script she can command, modeled after the adopted writing series.

3. Manila paper of postcard weight.

4. A black "standard checking crayon" or crayola for writing in broad strokes on cards and chart.

5. A twenty page chart made by fastening large strips of blank newspaper or wrapping paper between two half-rounds, inch strips, or laths.

6. A box of colored crayon for teachers' illustrations.

7. A common window shade with spring roller to be fastened to woodwork above blackboard and used to cover sight reading written on the board.

Use of Material.

a. A square yard of manila paper should be cut into strips 18 inches long by 3 1-2 inches wide. On these strips should be written with checking crayon the sentences as they are learned by the children. It will thus be possible to review all the pupil has learned without the trouble of writing the sentences on the board.

b. Some of the manila board should be cut into strips 4½ inches wide and 7 inches long, and on these may be written for ready review the words which the teacher wishes the children to remember. If the word is written on one side and printed on the other, this will facilitate the transition from script to print.

c. The words may also be written with pen on manila strips 1 inch by ½ inch for seat work by pupils. Each pupil should have a large manila envelope to contain his words.

d. The chart should gradually be filled with the connected sentences and used for a more extended review by individual pupils as an exercise in "keeping the place."

This simple apparatus is inexpensive and will prove much more effective than the most costly chart which could be purchased.

Beginning to Read.

The following suggestive lessons based on the Wheeler Primer, have been contributed by Miss Leila A. Russell of Winthrop College, County Supervisor of Rural Schools, York County.

Lesson 1.

Our own names are for each of us among the most interesting words in the language. Every child has a desire to read and write his name. In this lesson teach each child to recognize the written form of his name. Men and women sometimes use visiting cards on which their names are written. Say to the class: "Let us play we have visiting cards this morning and I'll make your cards." Write simply the given name in a large, bold hand on a piece of card board 4½ inches by 7 inches, and give each child his card. Now each child may introduce himself to the class by stepping out before it and showing the card. Teacher may say: "I can speak your names, but I shall let the chalk do it on the blackboard, each one look at his card closely and the one whose name the chalk puts on the board may step just in front of the class, but face the board." Teacher continues until she has written every name on the board. "Now let us see who can find his name on the board. Mary may try. Nellie may try, James may find his, etc. As your name is erased, children, you may take your seats." (Erase one at a time.)

For seat work the children could place shoepegs or grains of corn on the lines of the letters forming their names.

Lesson 2.

Game: Take up the cards. Have children stand in a row. Explain what is meant by head and foot of the class. Tell them you are going to hold up the cards one at a time and call on some child to tell you whose name is on the card. If the one called on tells, he may go head and have a head mark, if he fails he must go foot and be given nothing. The one receiving the highest number of head marks wins the game. During the first part of the game call on each child to recognize his own name and later try the other names on him.

Have each child stretch his arm out and write his name in the air. The teacher will stand by the child and direct these movements.

Lesson 3.

On the first sheet of the blank chart write the names of the pupils. A ladder could be drawn on the sheet and the name of the smallest child placed on the first round. See how far up the ladder the children can climb in recognizing their names. Let each child write his name on the board. The letters should be large enough to insure a free arm movement. Every day the lesson should close with an assignment of writing at the board. A little later, writing should be given as seat work. Use large soft pencil and unruled paper.

Lesson 4.

"Have you little people any pets at home? What are they? I know a home where there is the dearest pet. Every one in the home loves it, but one person in the family seems to love this pet more than the others do. I believe, too, that the pet loves her more. I wonder if you know what pet this is." Tell the children, if they do not know, that it is a baby. Show a picture of a baby and write *Baby* on the board. Ask whom baby seems to love best of all. Repeat several times and have children repeat also:

Baby, Baby, Baby,
Baby loves Mamma.
Baby, Baby, Baby,
Mamma loves Baby.

Write the above on the board and have the children repeat as you point to the words. Try having a pupil point to the words and repeat it. Point to the first word. "What is it?" "Find *Baby* somewhere else?" Look at the last word, repeating the lines in concert and pointing to the words. "What is this word?" (Pointing to *loves.*) In every lesson review all words previously learned.

Lesson 5.

Repeat the four lines again pointing to the words. Say, "I know someone else who loves mamma." "Here he is." (Taking Harry by the hand and writing, *Harry loves Mamma.*) Continue until there is such a statement made about each child and written on the board. "Find the place on the blackboard where something was said about you, Harry." "Read what was said, Nellie." Continue this until every sentence has been read, and read as sentences. Do not allow word calling. The teacher can make other sentences drilling on these same words. She might say, "The chalk will tell some one else Nellie or Harry loves," writing:

Nellie loves Baby.
Harry loves Baby.
Baby loves Harry.
Baby loves Nellie.

Erase one sentence at a time, and after doing so, have a pupil tell what you erased.

Lesson 6.

"Let us all play we are visiting this morning. Let us take this part of the room for the house we are to visit, and Nellie and Lucy may be hostesses. What will you say first to these little girls when you come to see them, John?" (How do you do, Nellie? How do you do, Lucy?) When each child has called on Nellie and Lucy and these little girls have replied, asking the same question of their guest, show the words written on a large strip of paper. Have the children say in concert these words as you point to each one. Write the same sentence on the board, addressing a different child each time. Let the child who recognizes what is written, go to the child addressed and ask the question. Let each child write *How do you do?* on the board under the teacher's copy.

Lesson 7.

Make a second leaf for your chart writing:

Baby, Baby, Baby,
Baby loves mamma.
Baby, Baby, Baby,
Mamma loves Baby.

Mamma	loves	Baby
loves	Baby	Mamma
Baby	Mamma	loves

These words should be written on slips of paper to be arranged by the pupil as seat work, in the order of sentences written on the board or chart. Matching sentences with his single words from his envelope may now be a regular form of seat work.

Lesson 8.

Teacher might say to the children, "I want to introduce you to some of the friends you are going to meet in your new reader. One is a friend that almost every little child loves. I suspect each one of you has such a friend in your home. Haven't you a little friend that says, 'mew, mew' when you speak to her? Let us fix a card for her name. Here is her picture. What is her name?" (Kitty.) Teacher should write it on the board. "Now you have been introduced to Kitty, and you are seeing her for the first time here in school. Let us give her a morning greeting."

How do you do, Kitty?

"I'll play that I am Kitty. What must I say when you speak to me?" (Mew-mew.) "I'll write your part and mine too on the board."

Children: "How do you do, Kitty?"

Kitty: "Mew-mew!"

"Let us call Kitty three times."

"Kitty, Kitty, Kitty!"

"Let's be Kitty and say Mew-mew!" "Call her again."

"Kitty, Kitty, Kitty!"

"Now greet her." "How do you do?"

Teacher should have the lines repeated until memorized, then write on the board and repeat several times, pointing to the

words as each is spoken. Continue work on this as suggested in Lesson 7. Write this jingle on the chart you are making:

Kitty, Kitty, Kitty,
Mew-mew-mew.
Kitty, Kitty, Kitty,
How do you do?

Lesson 9.

"Tell some things you can do, children. I see you do many things here at school." In reply to this the pupils may say, *eat*, *sleep*, *talk*, *walk*, *run*, *hop*, *skip*, *jump*, *sing*, etc., but only certain ones of this list are needed in order to read the Primer. These are *run*, *sing*, and they should be written on the board. Probably it would be well to add *hop* and *jump*. They will be easily taught as action words and will enable one to make a greater number of sentences bringing in familiar words. I should write these words on the board with capital letters.

Run
Hop
Sing
Jump.

Teacher may now point to the first word and say, "I want to see all you children do this, what is it?" Have the children run across the room. "Some one find the word that told you to run." Continue until pupils have performed the act for each word, and then found the word in the list. Now try the following: "Mr. Chalk is going to speak to certain ones, telling them what to do."

Run, Nellie.
Run, Harry.
Hop, Lucy.
Hop, Mary.
Jump, John.
Jump, Paul.
Sing, Louise.

"What was Nellie told to do? Show me the word. Find it somewhere else?" The drill with *hop*, *jump*, and *sing* may be done in the same way, having each child perform the act.

Lesson 10.

Each new word of phrase or sentence learned should be written on a large piece of cardboard, say 4½″x7″. It should also be written on a slip of paper and added to those in the envelopes. These cards and slips of paper may be used in numerous ways to drill on words.

The following game could be used: Have the children stand in a row. Explain what is meant by the head of the class and state that every time a child recognizes what is on a card as it is held up, he is going to be allowed to step to the head of the class and will be given a head mark on the blackboard. The one who gets the largest number of head marks wins the game. All children like movement in a recitation.

Lesson 11.

"We are tired sitting, I suspect. Mr. Chalk will tell you what to do to rest."

Run, run, run,
Jump, jump, jump,
Hop, hop, hop,
Sing, sing, sing.

The teacher will have to explain that when the word comes first in the sentence we write it with a capital letter. Add a child's name to each of the commands; as, Run, run, Nellie, etc. Teacher may now teach *can* in this way: "Tell me something Nellie can do, Lucy." (Nellie can run.) "Mr. Chalk will say exactly what Lucy said." "What was it, Harry?" "Class say it." The teacher writes on the board, "Nellie can run." "Read what Mr. Chalk said, John." The teacher may continue saying, "Mr. Chalk likes to talk. See what he says this time." Write the same things in a number of places on the board. *Can jump*, *can hop*, *can sing*, may all be dealt with in the same way. Now erase one sentence at a time and have the class tell you what you erased. Make the four large cards needed and write *can jump*, *can hop*, *can sing*, *can run* on them. The teacher should do this out of school hours. The slips bearing these words should also be added to the envelopes. Make another leaf for your chart, bringing in all the words the child knows, if possible. Send the children to their seats to build up these sentences with the slips in their envelopes.

The new chart leaf will be something like this:

Kitty can run.
Kitty can jump.
Mamma loves Kitty.
Lucy loves Nellie.
How do you do, Mamma?
Harry loves John.
Kitty loves Baby.
John can jump.
Mamma can sing.
Sing, Mamma, sing.
Run, Harry, run.
Can Kitty run?
Kitty can run.
Can Nellie jump?
Nellie can jump.

Lesson 12.

"Now let us see who in this class will have the sharpest eyes You may look all around the room and see how many things you can see. The people who have the sharpest eyes will see the most things. Now close your eyes and try to see them in your mind. Can you see just how I look? Tell me what kind of a dress I have on." "Tell me one thing you can see, Harry." "Begin by saying I." ((I can see a chair.) "Tell me something you can see, John." (I can see a ball.) "Tell me something you can see, Lucy." (I can see a bucket.) "Something you can see, Nellie." (I can see a leaf.) The teacher may accept numerous answers, writing only those that the children can read. Many objects mentioned can be drawn with just a few lines instead of writing the words. Have the children open their eyes. Ask who said, "I can see a leaf?" "Mr. Chalk has said the same thing on the board. What was it?" "Class say it." "Here it is; class say it with me as I point." Continue the work with each sentence on the board. Give drills on the individual words, *I see a leaf*, etc. Add the new words and phrases to the cards and envelopes.

Lesson 13.

The following may be given as a drill. Write these sentences on the board:

Can you see Nellie?
Do you love Mamma?
Can you see Harry?
Do you see Lucy?
Can Nellie see John?
Do you love Baby?
Can you jump?
Can Nellie run?
Can Baby sing?
How do you do?

Tell the pupils when they are ready to answer these questions you will let them make a statement doing so. Having done this, it would be well to let the children ask the questions of each other; e. g., John turns to Harry and says, "Can you see Nellie?" These questions, many of the replies, and other sentences containing such phrases as *a leaf*, *a chair*, *a bat*, *a ladder*, etc., should now form a new chart leaf.

Lesson 14.

Introduce three more friends the children are to meet when they get their Primers: *Rover*, *Bell*, and *Mamma Rabbit*. This can be done in the same way Kitty was introduced. Try to use all words in other sentences than those in the book, so that the thought in the Primer will be fresh and new to them. The teacher could easily make up a story about *Bell*, *Rover* and *Mamma Rabbit* and let the children act it, just a short story. Fix the cards and the slips for these new words and drill.

Lesson 15.

"We have said that Mamma loves Baby, and in fact, that all of us love Baby. Why is it we love and care for Baby so tenderly?" "Baby is little and can not care for himself." "Haven't you some other pet that is little and for which you must care?" (Kitty is little). "Big brother must be kind and care for Nellie, too. Why?" (Nellie is little.) "Name some one or something that is little." "What did we say about Baby?" "About Kitty?".

"About Nellie?", etc. The teacher may now say: "Mr. Chalk is going to say the same thing about Baby, Kitty, Nellie, etc.", and write the sentences several times on the board.

Baby is little.
Baby is little.
Kitty is little.
Nellie is little.
Kitty is little.

Have each sentence read. Having written *is little* on a card before time for the lesson, ask the children to find the card that tells what is said about Baby, etc. Make a leaf for the chart.

Lesson 16.

"The pets in our homes must be cared for. Name some things you might do to care for them." "Yes, we must *feed them.*" (Write the word on the board.) "Now can we show Kitty and Rover that we love them?" "Mr. Chalk is going to talk to some of you and tell you two things to do." (Play feed Kitty and Rover.)

Lucy, feed Kitty.
Harry, feed Rover.
Harry, feed Kitty.
Lucy, feed Rover.

"Find the word *feed.*" Another leaf may now be added to the chart on which are many sentences containing the new words and the old ones needed in the drill.

Lesson 17.

"This morning, children, you may tell me some things you like to do. Maybe we can do some of them right here in the school room. If not, possibly we can do them at recess. Think of the things we have said we can do and tell me what you like to do."

I like to jump.
I like to run.
I like to hop.
I like to sing.

The teacher should write these sentences on the board as they are given. Have each child read what he said. "What is it

Nellie likes, John?" "What is it Harry likes, Lucy?" The response will be:

Nellie likes to jump.
Harry likes to run.

Holding up a card on which is written *likes to jump*, the teacher may say, "That is what was said of Nellie. What is it?" "Find it on the board." Following this line, work with cards, with slips in the envelopes, and with the chart. The blackboard drill can be given on all new words and phrases.

Lesson 18.

Add a new leaf to the chart something like the following and have the children give it as dialogue:

John: How do you do, Nellie?
Nellie: How do you do, John?
John: See Rover, Harry.
Harry: I see Rover. Rover can jump.
Lucy: Do you like to see Rover jump, John?
John: I like to see Rover jump.
Harry: Rover likes to jump.
Nellie: Baby likes to see Rover jump.
Lucy: See, see how Kitty can jump!
John: Kitty can sing.
Harry: Kitty sings, "Mew-mew."

By using a hektograph, each lesson after it is taught in the school room could be reproduced and each child given a copy of the sentences read that day. He could take it home and read it to his father and mother. These hektograph copies if done on stiff paper, or light weight cardboard, can be preserved and by and by the child will have enough to make a booklet.

Advantages of this Method.

Among the obvious practical advantages of such a method as that described by Miss Russell are the following:

1. The pupils begin to read at once and their interest is immediately secured.

2. From the very first, reading is what it should be—thought-getting.

3. Since the pupil gets the thought of the sentence as a whole and feels it clearly, the oral expression is easy and natural and he forms correct habits of oral reading.

4. He develops the power of seeing the sentence as a whole and so becomes a fluent reader.

Learning to Write.

The child usually comes to school with the natural impulse to write and draw. He should begin learning to write as soon as he begins learning to read. Writing is an end in itself and an effective means of making the word forms clearer and of quickening the ability of the child to detect differences and resemblances in words. The first writing of the pupil should be done at the blackboard with crayon. He is thus almost compelled to use the free-arm movement, upon which the teacher should insist. The writing at the seat should begin later, and the pupil should at first use only pencil and unruled paper. The writing should be large in order to secure freedom in arm movement. It is better for the beginner to use a large soft pencil as this prevents a cramped position of the fingers. Freedom rather than accuracy should be the first aim of the teacher. Imitation is the chief factor in handwriting. The teacher should herself develop the clear round hand which she wishes her pupils to learn. The script should be stripped of all flourishes and unnecessary strokes. The transition between this handwriting and print is very easy.

Drills to Secure Quickness and Accuracy in Recognition of Words.

Class Work:—Give all the cards containing the names of the pupils to one pupil and let him give each to its owner.

2. Hold up before the class the names of the objects on the desk and in the class room and let the pupil reciting touch the object as the name appears.

3. Arrange words as rungs on a ladder and see who can climb to the top and back without falling, that is, without missing a word.

4. Arrange words as cross ties on a railroad trestle and see who can cross the trestle without help. If the pupil can not walk the ties alone, see who can help him.

5. Have a number of words on the blackboard. A child may be teacher. He says: "I am thinking of 'pretty.' Erase it, Jane." If Jane erases the right word, she may be teacher, and

call on some other child to erase a word of which she is thinking. In all drill work the main effort should be for quickness: both teacher and pupil should be alert.

6. Hold up in succession manila cards containing all the words and sentences which the children have learned. Let the children read them rapidly.

7. Place the manila cards on the blackboard ledge so that they may be readily seen by the class. They may then be collected by the class, as the teacher asks: "Who can find 'pretty,' 'good,' etc.?"

8. Let a number of words be written on the blackboard. One child hides his eyes and another tips to the board and touches one of the words. Now the child opens his eyes and by reading the words tries to guess which word was touched. When the right word has been guessed the children all clap hands.

9. Let one child stand with back to the blackboard, facing the class. The teacher writes a word on the blackboard where the class may see it. Now they begin to describe the word and the child at the board must guess what it is. Suppose the teacher writes "table." One child says, "It has four legs;" another "It is in this room;" another "It has flowers on it;" another "It has books on it"—now the child can guess "table."

10. Have a mail box and give each child a letter (a sentence usually). After the children have read the letters silently, they read them aloud to the class.

Seat Work:—Prepare for each child an envelope containing two copies of each word written on strips of paper. Let the children match the words on top of the desk. This exercise will teach the children to observe words closely. They will soon learn to match even unfamiliar words.

2. Have a box containing pictures of various objects--such as a top, a ball, a hat—also the written or printed words which name these pictures. Let the children place the picture on the top of the desk and place the corresponding word under it.

3. Let the children take the words from their envelopes and make the sentences placed on board or chart by the teacher.

4. On an ordinary shipping tag or other pieces of paper, write the names of various objects in the room. Give a pupil several of these tags and ask him to tie each to the proper object.

5. Let each pupil make for himself, at his seat, a chart like the class chart. Other writing exercises will of course suggest themselves to the teacher.

6. Have a list of name words on the board—such as *hat*, *chair*, *bell*, and let the children draw the object and place the drawing by the name of the object.

Getting the Book.

Several weeks of reading should be done before the Primer is placed in the hands of the pupil. He is not able to use the book at first, and if placed in his hands, it merely gets old and dirty. He should be able to read in script from the blackboard, the cards, or from the chart, the first fifteen pages of the adopted text before he is told to get the book.

Making the Transition from Script to Print.

After placing the book in the child's hand, the teacher's first task is to make the transition from script to print. If her writing has been clear, round, and free from flourishes, this will not be difficult. She has already taught the first fifteen pages of reading matter from the blackboard, and has perhaps placed it in her chart. Beginning from the first, the page to be read should be duplicated in script on the blackboard or chart. The pupil should read the script and then compare it with the words in the book. After a few pages have been read in this way the print will offer no further difficulty.

When the book is begun the teacher should continually emphasize the silent reading of the entire sentence before its oral reading is attempted. She can best secure this result by having the pupil read the sentence silently, then look up and tell the class what it says. She should discourage the habit of pointing at the words with the finger or pencil while reading them.

Teaching the Recognition of New Words.

In the beginning of reading the child learns the word as a whole. When he has mastered in this way a vocabulary sufficiently large to give him an idea of the meaning of reading, he should enter on the third step in his task—learning to recognize new words for himself. He has already noted resemblances in

the words which he has learned and is ready to analyze them into syllables and letters. The steps in this process are as follows:

1. The teacher and class analyze familiar spoken words into their component sounds. This is done by pronouncing the words slowly and still more slowly till the individual sounds stand alone—thus, *fan*, *f-a-n*, *f—a—n*. It is usually best at first to separate merely the sound of the initial letter from the word, as—*f-an*, *m-an*, *c-an*, *b-all*, *b-at*. The training of the pupil's ear in perceiving sound and in combining these sounds into words should receive attention at an early stage in the learning process. The teacher may speak short sentences in which a word or words are separated into sounds as: *I see a f-an. The boy has a b-at.* The pupil should then repeat the sentence, pronouncing the word which was sounded in the ordinary manner, and then slowly as the teacher did. This exercise should be continued till the pupils recognize the sounded word with facility. The teacher should know thoroughly the sound of the letters in the English language, and should be able to make them correctly and distinctly, in order to be able to do well this important part of her work. Haliburton's *Phonics in Reading*, published by B. F. Johnson & Co., Richmond, Va., should be in the hands of every primary teacher.

2. The second step is the analysis of the written words into parts corresponding to its sounds. The words should be written with the isolated sound separated from the rest by hyphens.

3. The sound should then be firmly associated with the symbol. Interest may be aroused in the learning of sounds by associating with the letter whenever possible some natural sound with which the child is familiar. For example, *f-f*, is the sound made by an angry cat; *r-r*, the growl of a dog; *m-m*, the lowing of a cow; *t-t*, the tick of a watch;*p-p*, the sound of a light-puffing steam engine; *ch-ch*, the puff of a loaded engine; *n-n*, the sound of a circular saw cutting a log; *s-s*, the hiss of a hot iron plunged into water; *h-h*, the pant of a tired dog; *k-k*, and hard *c*, the cough of a child trying to get something out of its throat; *g-g*, the sound of gargling; *d-d*, the sound of a pigeon; *b-b*, the bubble sound; *sh-sh*, driving the chickens away.

This drill on the sounds of the letters should be alternated with the regular reading lesson till the sounds of all the consonants and the principal vowel sounds are familiar to the child. The letters may be written on cards and these held up in quick

succession before the class, who will give the sound of each as it appears. The teacher should be satisfied with nothing else than the exact sound by the pupil. Buh-ah-tuh is as far from the sounds of the letters in *bat* as bee-a-tee. She will find that this exercise is also of great service in correcting imperfections in speech which children frequently bring over from babyhood.

The teacher should also introduce word-building from the common phonograms or sound syllables which the children have learned, and should give them other syllables as the basis for new words. *An*, *at*, *it*, *all*, and *old* are good introductory phonograms. *An* may be considered the surname of a large family of words. "How many members of this family can you name?" the teacher may ask. The first is c-an. D-an, f-an, m-an, n-an, p-an, r-an, t-an, v-an are the other members of this interesting family. The pupils should first separate the sound of the initial letter and then blend with the phonogram. When this work is once well begun the teacher and pupils will suggest and discover many other phonograms from which hundreds of words may be built. When a child finds a new word in his reading, he should be taught to sound it and discover its pronunciation for himself. In the English language there are many words which are not phonetic. Any system breaks down in the presence of such a combination of letters as *though*, *cough*, *bough*, *enough*. What must be said of them must be said of hundreds of other words: they must be learned by sight.

The following Outline for Lessons in Phonics, prepared for the Oregon State Course of Study and submitted by the publishers of the Wheeler Primer will be suggestive to State Carolina teachers.

OUTLINE FOR LESSONS IN PHONICS.

By Clara Dinkle.

Review.	Teach Phonics.	Pronounce.	Write.	Teach Stock Words.
	p. 7, m,	my, man, mamma,	man	Mamma, loves, baby
m,	p. 8, s,	see, sing, sit,	see	can, I, see
m, s,	p. 10. l,	like, little, love,	love	little, is, a kitty
m, s, l.	p. 11, f,	fat, feed, four, five,	fat	you, like, feed, Rover
m, s, l, f,	p. 12, d,	do, doll, dog,	dog	dog
m, s, l. f. d.	p. 13, b,	Baby, Bell, big,	big	Bell, me, am
m, s, l, f, d, b,	p. 14, t,	two, too, to, touch,	two	one, two, three, four, five
m, s, l, f, d, b, t,	p. 15, g,	get, girl, good, big,	get	apples, my, big
m, s, l, f, d, b, t, g,	p. 16, r,	Rover, run, rabbit,	run	O, do, the rabbit
m, s, l, f, d, b, t, g, r,	p. 19, fr,	Frank Fred, free,	free	Fred, Ruth, doll, have
m, s, l, f, d, b, t, g, r, fr,	p, 21, n,	no, not, net, in,	no	not, has, shoe
m, s, l, f, d, b, t, g, r,	p, 23, bl,	black, blue, blow,	blue	black, and, white,
m, s, l, f, d, b, t, g, r, fr, n, bl,	p. 25, j, g,	Jack, Jill, Gyp,	Jill	Gyp, too, says, Edith,
m, s, l, f, d, b, t, g, r, fr, n, bl, j, g,	p, 26, br,	brother, bring, broom,	bring	brother, it, chicken,
m, s, l, f, d, b, t, g, r, fr, n, bl, j, g, br,	p. 28, w,	want, will, wait, William,	will	boy, want, this, cherries
m, s, l, f, d, b, t, g, r, fr, n, bl, j, g, br, w,	p. 29, p,	pig, papa, pony,	pig	pig, to, papa, good,
s, l, f, d, b, t, g, r, fr, n, bl, j, g, br, w, p,	p. 31, pr,	pretty, print, price,	pretty	bird, nest, pretty, they,
l, f, d, b, t, g, r, fr, n, bl, j, g, br, w, p, pr,	p, 34, y,	yet, yes, you,	yet	puppy, puppies, yes,
f, d, b, t, g, r, fr, n, bl, j, g, br, w, p, pr, y,	p, 35, gr,	grandpa, grand, grow,	grand	Harold, pony, grandpa, birthday,
f, d, b, t, g, r, fr, n, bl, j, g, br, w, p, pr, y, fr,	p. 37, c,	cat, can, come,	cat	cat, she, gave, him,
f, d, b, t, g, r, fr, n, bl, j, g, br, w, p, pr, y, gr, c,	p. 38, k,	kind, kitty, look,	look	run, rat, look, no

OUTLINE FOR LESSONS IN PHONICS.—(Continued.)

By Clara Dinkle.

Review.	Teach Phonics.	Pronounce.	Write.	Teach Stock Words.
d, b, t, g, r, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k,	p. 40, h,	he, his, Harold,	his	cow, calf, milk, his
d, b, t, g, r, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h,	p. 42, s,	dogs, dolls, boys, birds,	dogs	girl
	p. 43, th,	Ruth, Edith,	Ruth	with, we, going, go, ride,
	p. 45, pl,	please, plum, play,	plum	Kate, say, please
b, t, g, r, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, th,	(breath)			
b, t, g, r, y, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, pl, th, (br.)	p. 47, v,	dove, love, have,	dove	box, dove, in, for
t, g, r, y, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, pl, v, th (br.)	p. 49, qu,	quiet, quick, squirrel,	quiet	acorn, squirrel, will, wait
t, g, r, y, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, pl, v, qu, th, (br.)	p. 53, th, (voice)	this, that, they,	that	that, must, sing, catch
g, r, y, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, pl, v, qu, th, (breath) th, (voice).	p. 55, ch,	chicken, cherries, catch,	catch	play, make, what, now
g, r, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, pl, v, qu, th, (breath) th (voice), ch,	p. 59, cl,	cluck, clock, close,	close	hen, cluck, breakfast, on
r, fr, n, bl, j, g, br, w, p, pr, y, gr, c, k, h, s, pl, v, qu, th, (breath), th, (voice), ch, cl,	p, 63, s,	buzz, rides,	buzz	boat, water, Willie, if, your,

Learning the Names of the Letters.

Learning the names of the letters need give the teacher no concern. The children will learn them long before they are needed. It does no harm to call attention incidentally to the names of the letters early in the course, provided this does not take the place of the other and more important work which we have described. After work in Phonics is well under way, boxes of letters should be given to the children and they should build words with them. At the beginning of the second year they will need to use the letters in oral spelling.

Assigned Work in the Course of Study.

Teachers will note from outline of course of study found on page 28 that we have provided for the "First Grade" and the "Advanced First Grade." A teacher in a country school with a six months' term should not attempt more than the "First Grade" during the child's first school term. If she has a set of supplementary Primers in the library, she may use these to give variety to her work. In the long term school the teacher may take up the work of the "Advanced First Grade" during the first school year.

The pupil should not begin his First Reader until he can read the Primer fluently. Much damage is done in South Carolina by attempting too rapid progress and giving to children books for which they are not prepared.

Reading in the Higher Grades.

The limitations of this manual will not permit a detailed application of the principles already stated to the reading of the grades above the first. The principal aims which should govern the teacher remain constant throughout the entire course.

Habits Which a Teacher Should Aim to Develop in Her Pupils.

1. The habit of self-help in the learning of new words by the use of phonics. The teacher should never pronounce a word to the pupil if he can be led to arrive at the pronunciation for himself.

2. The habit of taking in a number of words at a glance.

3. The habit of reading in a natural conversational tone.

4. The habit of getting the thought before attempting to read orally.

5. The habit of visualizing clearly the picture suggested by the reading.

6. The habit of passing judgment as to the truth or beauty of what is read.

7. Right habits of using the dictionary. This should include:

a. Rapidity in finding words.

b. Discrimination in finding the right meaning.

c. The use of the key and the determination of the correct pronunciation.

8. The development of literary appreciation and discrimination.

More and more should be expected of the pupil as he advances through the grades. In Book *V*, "Heart of Oak Readers," and in the "Selections from the Riverside Literature Series" to be used in the Sixth and Seventh Grades, we find several selections which demand for full enjoyment the development of considerable literary appreciation. A profitable study of such poems as "The Passing of Arthur," "Sir Galahad," "Chevy Chase," "Scots Wha' Hae' Wi' Wallace Bled," "Ballad of the East and West," and "To a Waterfowl" demand special preparation and effort by the teacher as well as by the class. The study of such a selection should include:

1. An understanding of the setting of the poem.

2. An explanation of the unfamiliar words and the poetic expressions.

3. The pronunciation of the archaic words which may be found in the selection.

4. The study of the imagery of the poem.

5. The appreciation of the esthetic and ethical beauty of the poem.

6. A vocal interpretation of the selection by the teacher and the class. This last point cannot be too strongly stressed. Poetry is intended to be read aloud. A good vocal interpretation by the teacher who understands and appreciates it thoroughly. is worth pages of labored explanation of its meaning.

A Suggested Study of Bryant's "To a Waterfowl," Heart of Oak Books, Number V.

In assigning this poem for class study, the teacher may give the following directions: "After you have read this poem, carefully answer the following questions:"

1. What incident perhaps suggested this poem to Mr. Bryant?
2. What words in the poem would you not find in prose?
3. What is the meaning of the following words in their context: plashy, marge, solitary, chafed, illimitable, abyss?
4. What words in the poem suggest loneliness?
5. If you were an artist and were making an illustrated edition of the poem, what pictures would you paint for each stanza?
6. What likeness does the poet find between himself and the waterfowl?
7. How does the waterfowl strengthen the faith of the poet?

With these questions the pupils will come to the recitation with certain definite ideas in mind. In the course of the discussion many other questions will suggest themselves, as—why should the poet select the evening sky as a setting for his bird of passage? Why did he address a solitary bird and not a flock of migrating geese? Let the pupils try substituting their own words for those used by the poet and note the effect on the meaning and beauty of the poem.

Lastly, the teacher and pupils should read the whole poem aloud, observing the differences in effect as it is read by various members of the class, letting the class decide who gave the best interpretation of the author's meaning. This poem is well worth memorizing by the class.

Helpful Books for Teachers of Reading.

Arnold—*Reading and How to Teach It.* Silver, Burdett & Company. $1.00.

Arnold—*Learning to Read.* Silver, Burdett & Co. $0.36.

Haliburton—*Phonics in Reading.* B. F. Johnson & Co.

Chubb—*The Teaching of English.* The Macmillan Co.

Welch—*Literature in School.* Silver, Burdett & Company.

LANGUAGE AND GRAMMAR.

"The power to understand rightly and to use critically the mother tongue, is the flower of all education."—*Pres. Eliot.*

In every day life the ordinary child talks to express to others the thoughts and feelings which crowd upon him as he meets with his varied experiences, each full of compelling interest. His words and sentences may be disconnected, his language full of slang, vulgarisms, and incorrect English of all varieties, but he usually speaks with spontaneity and effectiveness. To be sure, we occasionally find children who have been brought up without companions and who, consequently, talk very little. The only cure for this state of affairs is free association with others in work and play. To bring spontaneous speech to the lips of children, the teacher must rely on their natural impulses as they come in contact with others in the midst of surroundings which appeal to their interests. To stimulate speech, the teacher must first stimulate thought. If her work has become a lifeless routine, her pupils will have little use for language; but if it is based on their experiences and appeals to their interests, if it opens their eyes outdoors to see the beautiful and the wonderful in nature, if in the school room it discloses to their imagination the world of myth and legend and story, they will talk almost without knowing it. Having once secured the freedom of expression which comes when the child has something to tell, the teacher's task is to direct the impulse so as to secure continuity of thought, correctness of speech, and the ability to write with force and facility.

Resources of the Teacher in Language Training.

1. *The Power of the Teacher's Example.*

Teachers often do not realize the wonderful influence of their own example on the speech of their pupils. This influence is all the more potent because it is unconsciously exerted. I once visited a school taught by a teacher who had been a pupil of one of the South's great teachers, Dr. W. H. Payne, formerly President of Peabody College. As I observed the work, I noticed that practically the whole class used a certain gesture of the hands in reciting. When the teacher began the explanation of a difficult point, he used the same gesture. I immediately recognized it as the characteristic mode of emphasis used by Dr. Payne in my college days. When I mentioned my observation to the teacher and the class I found that not one of them was aware of the gesture. I afterwards told the story to Dr. Payne

and he was likewise in ignorance of the fact that he used any characteristic gesture whatever. The little movement, however, had been unconsciously transmitted to the third generation of pupils. The more significant habits and modes of thought of the teacher are more surely and even more unconsciously transmitted. The whole class will copy the handwriting of a favorite teacher, and the tendency to adopt her modes of oral expression is even stronger. Last year I visited a certain rural school in South Carolina. I arrived at recess and mingled with the teachers and the pupils in the freedom of the playground. I was at once struck by the slang which characterized the speech of the pupils and was at a loss to account for it until I met one of the teachers, a bright young college graduate, who used slang in every sentence and seemingly unconsciously.

Any one who attempts to acquire a speaking knowledge of a foreign language will soon learn that this consists largely in learning, bodily, connected phrases and idiomatic expressions of the language and of combining and re-combining these expressions to meet the need of the moment. The same thing is true in the learning of our own language. The phrases and sentences learned at home and in school form the units of speech for the child. The teacher's own contribution should be the richest and best which she can possibly make it.

2. *The Story.*

One of the necessary qualifications of a good primary teacher is the ability to tell a good story. Most children are hungry for stories. These develop the expanding imagination and furnish a fund of thought and a store of phrase and sentence units of expression and give, in the re-telling, an admirable exercise for language training.

The first stories told the children should abound in repetition and should be based on familiar ideas. At first the pupils will not be able to re-tell the whole story, but assisted by the teacher, one pupil will tell one paragraph, and another, another, until the most timid child has acquired confidence and can make his contribution. If the child makes a mistake in grammar in the progress of the story, he should be quietly corrected at the time by the teacher unless she feels that the interruption would do more harm than the neglect of the error. The story in its oral and written form, both reproduction and original, should continue to form a part of the language work, even through the

high school. A period should be set aside occasionally for jokes and short, humorous stories. The development and healthy direction of a sense of humor in teacher and pupil is a very necessary part of a liberal education. The teacher should have as a regular part of her equipment, books containing stories adapted to the various grades of her school. She should read Bryant's *Telling Stories to Children* and *Wyche's Some Great Stories and How to Tell Them.*

3. *Conversation.*

In every day life conversation constitutes at least ninety per cent. of spoken language. It is the basis of all social intercourse. Not only should the art of conversation be cultivated for its own sake, but it is one of the surest means of reaching the other desirable ends in language training. The language period should frequently be a conversation period in which pupils and teacher talk freely about the things in which they are interested.

The material for conversation will naturally be found in the studies and activities of the school. Perhaps the most fruitful source is the nature study. The mockingbird's nest in the yard, the germinating seed, the growing plants in the school garden, the development of the mosquito in the gauze-covered jar on the teacher's desk, the growing caterpillar, the butterfly bursting from the cocoon, are all intrinsically interesting and call forth many observations and comments from the children. The study of pictures found in the Readers or purchased for this purpose, offers an opportunity for conversation lessons. It also contributes to the development of the power to enjoy good pictures.

Lessons in health and sanitation, and in morals and manners, may best be developed in the course of conversation in which the pupils take an active part. Little is accomplished by set talks or little sermons on these subjects.

In higher grades, these conversation lessons will naturally expand into the more formal "oral composition" and into the school debate.

4. *The correction of errors in speech.*

In every community the teacher will find certain prevalent errors in speech, both in grammar and pronunciation. The use of these faulty expressions has become second nature to the children and they use them unconsciously. The first step in their elimination is to make the pupil conscious of his errors and of the correct forms. If he says "aint," "Have went," "I seen him

yesterday," "between you and I," "you'ns," "Can James and me go for a bucket of water," or "I taken my book home," the thing for the teacher to do is politely and unobtrusively to call his attention to his error when it is made and then teach him the correct expression. With the older pupils, the grammatical reasons may be pointed out. The teacher should note carefully the speech of her pupils; she should make a list of the current errors and endeavor, one at a time, to correct them. The favorite teacher of my boyhood posted a list of the worst errors on the board and every day called on her pupils to tell which they had heard during the day. In an impersonal way, she thus brought the errors strongly into consciousness. This is the first step in the correction. The other is to secure the use of the correct form so frequently that it becomes habitual and the speaker is assured against a relapse into the error in moments of excitement.

5. *Memory work.*

Childhood is the seed time of the memory. In all grades of the elementary schools the memorizing of choice selections of prose and poetry should form a regular part of the school work. These will abide as a source of pleasure and will help set a standard of pure and beautiful English. The recitation of these poems and prose selections, at intervals, will furnish an excellent drill in oral reading and will be a source of entertainment to pupils and visitors. The following are suggested as suitable poems for memorizing. The teacher can add to the list indefinitely.

Selections for Memorizing.

Grades I-III.

"Mother Goose Rhymes."
"Twinkle, Twinkle, Little Star."
"Look Up and Not Down," Hale.
"All Things Bright and Beautiful," Alexander.
"By the Shores of Gitchee Gumee"—Hiawatha's Cradle, Longfellow.
"The Year's at the Spring," Browning.
"Wynken, Blynken and Nod," Field.
"Little Boy Blue," Field.
"I Have a Little Shadow," Stevenson.
"Where Did You Come from, Baby, Dear?" McDonald.
"Hang Up the Baby's Stocking," Miller.
"Suppose, My Little Lady," Cary.

Grades IV and V.

"The Children's Hour," Longfellow.
"The Village Blacksmith," Longfellow.
"I Shot an Arrow in the Air," Longfellow.
"Woodman, Spare That Tree," Morris.
"The Barefoot Boy," Whittier.
"The Brook," Tennyson.
"He Prayeth Best Who Loveth Best," Coleridge.
"The Song of Marion's Men," Bryant.

Grades VI and VII.

"Abou Ben Adhem," Hunt.
"The Star Spangled Banner," Key.
"By the Rude Bridge that Arched the Flood," Emerson.
"Ode," Timrod.
"Spring," Timrod.
"Annabel Lee," Poe.
"The Sword of Robert Lee," Ryan.
"Little Giffen," Ticknor.
"To a Water Fowl," Bryant.
"The Chambered Nautilus," Holmes.
"The American Flag," Drake.
"When Earth's Last Picture is Painted," Kipling.
"Ring Out, Wild Bells, to the Wild Sky," Tennyson.
"Breathes There a Man with Soul So Dead," Scott.
"A Cry to Arms," Timrod.
"Carolina," Timrod.

The following selections from the Bible should be memorized by all grades:

The Ten Commandments. Exodus XX: 1-18.

Psalm I; Ps. XIX: 1-6; Ps. XXIII; Ps. XXIV; Ps. XLVI; Ps. XCV:1-7; Proverbs I:7-9; Proverbs III;11-18; Ecclesiastes XII; Isaiah LV: 1-13; Job XXVIII: 12-28; Matt. V: 3-9; Matt. VI: 9-13.

All pupils in the school should become thoroughly familiar with Snyder's Selections from the Old Testament, or Moulton's Bible Stories from the Old Testament. As a part of the opening exercise, the pupil should learn several of the best hymns in the English language.

Teaching the Writing of English.

1. *Copying.*

The pupil normally finds his first training in the correct writing of his language through copying sentences in his writing exercises, or in the seat work assigned in reading. In this way, he learns easily the use of capital letters, periods, and question marks. Even in the third grade it is a profitable exercise to have the pupil copy in his best writing a selected paragraph from his reader. Nothing less than his very best work should be accepted. The pupil should read the sentence carefully, close his book and make his copy. He should then open his book and see if his copy is in exact agreement with the original in words, spelling, and punctuation. This exercise trains him in self-criticism and is a preparation for dictation, the next step in his training.

2. *Dictation.*

An exercise in dictation is as simple as it is valuable. A paragraph selected from the Reader, or some other text-book, should be read, a sentence at a time, by the teacher or a pupil assistant. The pupil should make a copy in his best handwriting, then open the book from which the selection was taken, make a careful comparison, and correct his errors in spelling and punctuation. In this way, he learns to connect the written expression with the oral and puts on his paper the punctuation already indicated by the voice in reading.

3. *Letters.*

Letter writing forms the larger part of our written English. After learning to write, one of the proudest moments of a child's life is when he writes a letter to some relative or friend. The teacher should utilize this impulse of the pupil for teaching him to write simple letters in correct form. It will add zest and interest to the exercise if the letters written in school are actually sent through the mail.

4. *Written Reproduction of Stories.*

In the third grade, the pupil should begin to reproduce in writing some of the stories he tells best orally. This exercise should not be made burdensome. One or two stories every month will be sufficient.

5. *Composition Writing.*

In selecting the subjects for more formal compositions, the teacher should choose those which relate directly to the pupil's tastes and interests. He should write because "he has something

to say," and not because "he has to say something." In the correction of the composition the teacher should emphasize one thing at a time. If the class has some difficulty in recognizing the beginning and the end of a sentence, and strings out expressions separated by commas, or "ands," she should for a time neglect other mistakes in composition and address herself to this one task till the error is corrected and the pupil habitually divides his paragraphs into sentences, and begins each with a capital and closes it with the proper punctuation. She may then attack another class of errors. Part III of the Kinard-Withers Language Book, Number Two, contains an admirable treatment of the subject of composition writing. This section should not be postponed until the rest of the grammar has been finished, but should be spread over the entire two years devoted to the book.

The Use of the Text-Books.

In the fourth grade the pupils should begin the study of the Withers-Kinard Language Book. The teacher should read carefully the introduction to this book, which contains suggestions covering the main points to be considered in the teaching. The lessons as outlined are so definite that they need little explanation or amplification to insure a correct presentation. At the request of the author of this manual, Miss Sarah Withers has submitted the following lessons to illustrate methods of treatment.

Lesson I. Part I.

The picture, "Feeding Her Birds," should be studied in class before it is assigned for home study. The teacher should let the children talk about the picture freely, telling what they see in it and like about it. She may tell the children a little about Millet—that he was a peasant boy himself who became a great artist and painted scenes he knew and loved so well. Any other interesting facts about his life may be told, and the lesson may then be assigned for home study. The next day the question in the books (and others prepared by the teacher) may be answered. The teacher may ask:

Which child is the oldest? The youngest? Whose turn will come next? How do you know? (Some children, when asked this question, have had different opinions, but most of them agree that the little child on the mother's right will be served

next, because of the eager, expectant look on her face. Opinions should be given freely and each child's approved or corrected.) Where did the hen come from? Who may be working out there? Some child may tell the story the picture suggests to him, following an outline the teacher puts on the board. The teacher should get the outline from the children, having them to tell what they should tell about first, next, etc. The following outline is suggestive:

The house—of what made, the roof, the vines.

The people who live in the house, how many and who they are and what they are called.

The time of day; what they are doing now.

The child should begin somewhat in this way: "In this picture there is a small house made of stone. It has a thatched roof, and vines are growing over it. I think it is a pretty home."

Lesson II. Part I.

When the teacher has finished Lesson I, she should take a few minutes to prepare for Lesson II. The month probably will be September. If it is, the teacher may say, "What month is this, children?" "What are some of the beautiful flowers and grasses to be found in September?" "Helen Hunt Jackson loved the beautiful September days, and she was always glad to see the flowers and grasses which are the signs or 'tokens' that September has come. She wrote a poem called 'September.' I shall read it to you." If the month should be August, the teacher may ask, "What month is this?" "What month comes next?" "What beautiful flowers do we have in September?" She may then go on with the lesson as indicated in the preceding paragraph. After reading the poem (and it should be read *well*) the teacher may ask one or two questions and then assign the poem to be studied and memorized.

The next day the questions in the book should be answered in class, and the poem recited by different children.

Lesson III. Part I.

Some child may read the rhyme aloud, and the teacher may call upon different children to go to the board and make a list of the names of the days of the week, one child writing one name, another the next, etc. The rule "All names of the

days of the week begin with capital letters" may be written on the board and then copied by each child. If the teacher does not have the children keep a note-book, the rule may be written in a conspicuous place on the board or on a chart. The selection to be written from memory may then be assigned as home work. It should be written from memory the next day in class. The children should be held responsible for each capital and each mark of punctuation.

Lesson XIII. Part I.

This lesson may be supplemented (and interesting seat work provided) by teaching the children to look in their readers for six words of one syllable, six of two, six of three, etc. These words should be arranged in columns, all words of one syllable in one column, all of two syllables in another column, etc.

Lesson XIX. Part I.

This lesson should be studied in class, to be sure that the children know the opposite of each word. The written exercise should then be assigned for home work. The next day the children may read aloud the sentences they have brought in. After discussion of these, the teacher should spend a few minutes preparing for Lesson XX, as indicated in Lesson III.

Lesson LVI and LX. Part I.

Lessons like these should be supplemented by the teacher. After lessons have been studied, the teacher should put sentences on the board in which *know* or *no* is to be supplied, as:

I —— my lesson to-day.
I have —— exercise to bring in.
Do you —— who this boy is?
—— I do not —— him.

Letter Writing.

The teacher should put a model form on the board and discuss with the children where each part of the letter should be put.

Exercises.

In some cases it would be well for every child to do *all* the work suggested, as on pages 49, 65, and 158. In Lesson 4, page 50, however, the children may choose the exercise they wish to bring in. Some will choose one, some another, and the next day's lesson will be more interesting because of the variety. A wise teacher may sometimes omit some exercise. It may not be suited to her particular pupils or to that particular time.

Suggestions on the Use of "The English Language" Book II.

Do not attempt to take the book rapidly. Each subject needs a great deal of drill work. Correlate the grammar and the reading wherever possible. While the class is studying chapter I in the grammar, it will perhaps be reading the "Greek Folk Stories" in the "Selected Literature for the Sixth Grade." Have the class make many statements about Pan, Midas, Apollo, Phaeton, Vulcan, and the other characters of the story. In some way have them ask questions about the story.

Ask pupils to make statements about the country they are studying in Geography, or the president whose administration they are studying in History. Have them write sentences illustrating the various kinds. Also have them examine and classify the sentences in the story they are reading.

Nouns.

Do not attempt to teach the chapter on nouns and pronouns. Chapter II, in one lesson. Take nouns for one lesson. Have the children, for proper nouns, name all the characters in the story they are reading. Have them name the chief towns in their State. Also give them names of States and great cities in their own country and some great cities of the world as spelling lessons. For common nouns, have them name all objects in the room, objects in their dining rooms or sitting rooms at home; all the things needed to make a dress, bread, a chicken house; all the things used in baseball, football, or tennis.

Pronouns.

Use numbers of sentences with blanks for the pronouns. Contrive to bring in special drill in use of "I" and "me." Point out

pronouns in history lesson and in the story they are reading and tell what each stands for.

Adjectives.

Give several days drill on adjectives. Let pupils find words that describe the nouns in the story they are reading. Ask questions to bring out sentences containing words showing "how many" and "how much." Write sentences on board with all kinds of adjectives. Let them find all the adjectives, tell what they modify and whether they tell "what kind," "how much," or "how many." Give them again drill in different kinds of sentences, telling them to underline nouns, pronouns and adjectives.

Verbs.

Drill for two weeks at least on verbs and give review drills on all the other parts of speech. Give drills calling attention to words that have many uses, such as "well" as noun, verb, adjective, and adverb. You will find that verb phrases will require more careful drill. Take sentences from history, geography, and literature. Let pupils classify them, pointing out the nouns, pronouns, adjectives, and verbs. In all work on sentences have the children point out the word the sentence is about and let them find the principal word which tells something of that word, thus preparing the way for understanding subject and predicate.

Adverbs.

Give a great deal of drill on kinds of adverbs according to meaning. Have many sentences on the board. Always ask first about the word which the adverb modifies, then ask the pupils to tell what part of speech it is, then develop the function of its modifier, the adverb. Drill on prepositions, conjunctions, and interjections. On every grammar day for weeks, five or six sentences should be written on the board and the children should learn to recognize all the parts of speech which they have studied.

Chapters III, IV, and V will require at least three months. Drills in analysis of simple sentences, and in the recognition

of parts of speech should be given daily. It is a good idea to put into these sentences facts in history and geography that you would like to impress. Before you assign a lesson in chapter III, drill the children in recognition of subject and predicate in sentences as simple as "Birds fly." In same way take direct and indirect object, and subjective complement. You should drill on these parts of the sentence some time before taking any others. Pupils will find it hard to recognize transitive and intransitive verbs. Lead them to see that a verb is transitive or intransitive as it is used in a special sentence and not in itself.

Don't touch the complex sentence until the analysis of the simple sentence has been mastered. Give constant drill in expansion of words and phrases into clauses. In adjective clauses get them to give clauses introduced by *who*, *which* and *that*.

In adverbial clauses, ask for clauses beginning with "when," "because," "if," etc. Drill on these some time before you take up noun clauses, and when sentences are given have the children pick out all parts of the sentence and tell what part of speech each word is.

The compound sentence will not need so much drill.

A good exercise for children is the combination of short sentences into one complex or compound sentence. Select some well written sentence from their reading and break it up into a number of short statements, and then have these combined into the best sentence the pupils can form. Try to show them the value of the complex sentence in expressing thought more accurately.

The teacher will find that the first five chapters are all that can be done thoroughly in a six months' school term, or even in a nine months term.

With all the drill that has gone before, chapters VI, VII, and VIII, can be taken more rapidly. Be careful to use abundant illustrations. In the study of plurals, emphasize by using forms in spelling lessons. In same way pronouns and adjectives may be taken up rapidly.

The chapter on "Verbs" must be taken slowly. Drill thoroughly on person, number, and tense before teaching infinitives. Have pupils give the conjugation forms for dozens of verbs, selecting especially verbs like *come*, *lie*, *lay*, *sit*, *set*, *see*, *do*, which they are liable to use carelessly.

The class will need especial drill on subjunctive mode, and on infinitives and participles. We should take especial care that they learn to use the different forms of the verb correctly and should drill constantly on use of "shall" and "will," "may" and "can," and the past tense of verbs which are freqnently confused.

The chapter on the analysis of sentences should merely summarize a work which the teacher has continued from the beginning of the book. A system of diagraming is of great assistance to the teacher in the assignment of work, furnishes a graphic method of showing the relation of the parts of the sentence and greatly aids the comprehension of most pupils. Some simple system should be adopted. That given in the Reed & Kellogg "Higher Lessons in English" is recommended by the author of this manual, and this book should be in the hands of the teachers.

Helpful Books for Teachers.

McMurry—*Special Method in Language*—Macmillan. 70c.

Dr. Reed Smith—*Participle and Infinitive in -ing.* Free on request addressed to University of S. C.

SPELLING.

English is not a phonetic language and until the commendable efforts towards simplification have progressed much farther we must continue to spend much time and energy in teaching our pupils how to spell.

A brief examination of the practical uses of spelling will give us the key to the principles underlying the methods of teaching the subject. When do we need to spell words? Invariably when we wish to write them. What words do we need to spell? Words whose meanings we know and which we desire to use in the expression of some thought. In practical life we rarely need to know how to spell a word whose meaning is unknown. It would be unsafe to attempt to use such a word.

It is a safe general maxim which bids us do the thing in preparation as we expect to do it in practice.

These facts suggest to us some working principles as the basis of our method in spelling.

Written Spelling.

Written spelling should be given half the periods assigned to this subject. Written spelling not only coincides with every day practice, but it is the best method to fix the form of the word in the memory. The visual memory of the written word is more vivid and more lasting than the auditory memory utilized in oral spelling, and the muscular act of writing fixes still further the sequence of the letters. When we are in doubt as to the spelling of a word, we frequently write it to see how it looks. Moreover, in the written recitation the individual pupil spells all the words, and not merely those which come to him in his turn.

Oral Spelling.

While written spelling should form the basis of our drill in this subject, oral spelling holds excellent claims to alternation in the program.

1. Oral spelling is more quickly given and saves time in the crowded program.

2. It is easier for the teacher to arrange and introduce spelling-matches and other stimulating incentives in oral recitations than in written.

3. While the child spells only a few words during the course of the oral recitation, he hears each word pronounced several times, and it is as important for him to get the correct pronunciation as the correct spelling.

4. With oral spelling it is easy to drill in the syllabication of words. As the word is spelled the pupil should pause momentarily for each syllable, as—*beau-ti-ful.*

On the whole, then, spelling should include:

1. The written spelling of assigned lists of words.

2. The written spelling from dictation of connected paragraphs.

3. Oral spelling of word lists. This is excellent for the review of lists covered first by the written method, and should be conducted once a week.

General Suggestions.

1. The spelling of the first grade will naturally be limited to the reading and phonic exercises. Every time a child writes a word he is learning to spell it, for the sounding of the letters composing it naturally calls attention to their sequence.

2. When the regular spelling book is placed in the hands of the class the teacher should continue to select words from the reader and other subjects for supplementary spelling lessons. If these subjects are correctly taught, the child will learn the meaning of the words and they will become a part of his using vocabulary. He should then certainly know how to spell them.

3. In the lower classes only a few words, not more than ten, should be assigned each day. These should be learned perfectly. As the pupils progress the lesson should be lengthened, but should always be short enough to make perfect preparation possible. We are seeking to establish the habit of correct spelling. This will not be done by assigning a long list of words to be missed.

4. Special note should be made by the teacher and pupils of words missed in the spelling lesson. These should be reviewed frequently. It is almost impossible to misspell some words. The teacher should distinguish between these and the words commonly misspelled. Especially difficult words should be written on the blackboard and observed carefully. A difficult word usually has only one or two danger points, for instance, there is only one thing to be studied in each of the words, sep-*a*-rate, cu*p*board, develo*p* and shep-*h*erd. The dictionary should not be used as a spelling book. When this is done the pupil spends a great part of his time studying words which he knows already, and another large part of it studying words which he will never need to know.

5. As Professor Hand so well says: "English spelling is not a matter of rule, but there are at least three rules of spelling which ought to be mastered by the pupil before he reaches the high school. These are:

"'(1) Words ending in *silent e*, drop *e* when a suffix beginning with a vowel is added.

"'(2) Monosyllables and other words accented on the last syllable, ending in a single consonant preceded by a single vowel, double the final consonant before a suffix beginning with a vowel.

"'(3) Words ending in *y* preceded by a consonant, change *y* to *i* when a suffix not beginning with *i* is added.'"

6. The teacher should insist that written spelling be done in a good legible hand.

7. The teacher should remember that the one good reason for having a pupil spell a word is that he may use it some time. Teach the meaning of the words spelled and let pupils use them in sentences.

Devices for Arousing Interest in Spelling.

1. Revive the old-fashioned "Spelling Bee." It will be a source of entertainment and profit for the whole community.

2. Develop a winning team for the County Field Day exercises. This will mean a succession of preliminary matches in the school itself to determine the school team.

3. Have a written test or match in spelling at the close of each school month. Post the school and individual class standings and see how these can be raised by the end of the year.

4. Make the pupils see clearly that while ignorance in many subjects may be concealed, inability to spell will always appear in our letters and will betray us at the critical moment.

Suggestions for Using Thomas' Blanks for Written Spelling.

(Adopted for optional use by the State Board of Education.)

Let the teacher dictate the words and the pupils write them in the first and third columns, numbered consecutively from 1 to 30. Dictated words are not to be written in the middle column, which is reserved for corrections. As soon as the words are written by the pupils, the teacher examines the blanks or has the pupils exchange blanks and the error mark (x) is placed before each misspelled word. The number of errors is placed in figures at the bottom of the middle column. The pupils then write correctly the misspelled words on the same lines in the middle column, looking them up and copying them from their spelling books. The teacher should see that the pupils themselves write correctly in the middle column the words which have been misspelled in the first and third columns. The teacher herself should not make the correction. If she does so the educational value of the exercise is partially lost. When pupils have once written a word in the first or third columns they should not be allowed to change it, as an erasure will tend to make them careless and will deface the blank. The blanks should be kept by the teacher in the school room as a permanent record of the work done by each pupil. An excellent review of difficult words may be obtained by occasionally selecting for the oral spelling, words which have been misspelled in preceding written lessons. The number of words dictated in a single lesson is left to the discretion of the teacher and should be regulated by the advancement of the pupils and the length of the recitation period. Children

should commence written spelling as soon as they can write legibly and continue it through their entire public school course. The blanks are adapted to any spelling book or dictionary.

ARITHMETIC.

General Aims in Arithmetic Teaching.

The chief elements in the task of the arithmetic teacher are:

1. To develop in the child the fundamental number concepts by bringing him in touch with varied experiences involving number relations.

2. To develop skill, accuracy, and quickness in handling number symbols, that is, in what we usually term the fundamental operations.

3. To furnish the pupil with such clear conceptions of business methods and operations that he may readily apply his arithmetic to problems arising in practical affairs.

While each of these elements will find a place in every grade of the elementary school, it will be conceded that the work of the first two years will be concerned chiefly with the first element, the third, fourth, and fifth years with the second element, and the higher grades with the third.

A pupil may become quite expert in the handling of figures and this knowledge may be almost useless because the symbols have for him no concrete basis or meaning. Arithmetic is to him a mere juggling of figures. I once saw a class which had for three weeks worked problems involving the Metric System. I asked the class to indicate on the blackboard the approximate length of a meter. The estimates varied to from three inches to the entire length of the room. They could manipulate the figures but the understanding was absent. I suspect that the estimates of the length of a rod by some of the pupils studying Linear Measure in our classes would show almost as wide variations. Try it. Let the larger pupils in your school estimate an ounce or a pound of sand and see how much they miss the true weight. We know, as far as words go, that sixteen ounces make a pound, but the government expert tells us that some scales may habitually sell us fourteen ounces for a pound and it does not occur to us to test the weight of our purchases. When your class begins to study Time Measure, have the pupils close their eyes, and as you hold your watch in hand before you, let them

indicate by raising their hands when they think a minute has passed. You will be surprised at the result. If you have not tried it, you will also be surprised at the accuracy a first grade will develop in estimating lengths when the pupils have been allowed to estimate and measure for a few weeks. These are the concrete things in arithmetic, and are normally the easy ones. We should continually test the foundations of our number work to see if our pupils are thinking in concrete terms, or are merely juggling with words and figures.

In the second stage, the development of abstract thought through concrete examples should be continued, but the principal work of the pupil must be directed to learning the tables and acquiring skill in the mechanical operations of addition, subtraction, multiplication, and division applied to whole numbers and fractions. Oral analysis with problems involving small numbers to secure clearness in thinking, and drills on the operations to secure quickness and accuracy, should be the key-notes of the third, fourth, and fifth grades. It is no uncommon thing to see pupils working in Percentage and in the more advanced business applications of arithmetic when their work is made fruitless by their inability to add a column of figures, or make a correct multiplication or division without repeated and laborious effort. The period between the ages of nine and twelve should be drill time in the life of a boy or girl, and the teacher should see that speed and accuracy in the fundamental operations become second nature to her pupils.

The work of the sixth and seventh grades ought not to deal primarily with the mechanics of arithmetic. The mere arithmetical operations involved in Profit and Loss, Commission and Brokerage, Stocks and Bonds, and Insurance, are simple enough to one who has received the preparation indicated above. To develop an adequate conception of the nature of the business itself is here the prime necessity. It is absolutely necessary for the teacher to familiarize herself thoroughly with business methods in order to make her work in the business applications of arithmetic really effective. To organize the class into a joint stock company, under the laws of South Carolina, to hold a stockholders' meeting, elect directors, to elect officers of the company, issue certificates of stock, issue bonds, declare dividends, buy and sell stock, and conduct in imagination other

operations of a stock company will give meaning to a subject which otherwise would be only dead "figuring."

Concrete Material and Its Use.

In the lower grades of the school it is necessary to have a variety of material for use in teaching numbers in order to give the concrete basis which we have decided is necessary to a thorough understanding of principles. There is an abundance of such material in the reach of every teacher almost without cost. Any one can secure beans, corn, hickory nuts, pebbles, or acorns. A large box of tooth picks, a few dozen small rubber bands, and a thousand square inch tablets of cardboard will cost only a few cents. The sheets of cardboard necessary to cut the inch tablets need not cost over 25c, and any newspaper office will cut them for you. The needles of the long-leaf pine make excellent material for cutting into given lengths as seat work. A few one-inch cubes, two-inch cubes, a few blocks of various dimensions, say 2″x2″x4″, 2″x3″x5″, may be sawed at any lumber mill. These blocks are of great value in teaching volumes and may be used in many other ways. Hobb's "Number Sticks" are very useful. A box contains perhaps a thousand sticks of various lengths, from one inch to six inches. These may be used in teaching combinations and separation of numbers. They may be obtained from A. Flanagan & Co., Chicago, Ill. The pupils, however, may make substitutes for them from pine needles, or other light material which may be easily cut into given lengths. Every school should be supplied with the pint, quart, and gallon liquid measure, and with the peck and half-bushel dry measure. Dry sand or sawdust may be used as material for measurement. It should also have a yard stick and enough cheap rulers so that each child may be provided with one. The rulers for small children should not show less than quarter-inch divisions. Every school should be provided with a cheap grocer's scale, or at least with a spring balance for determining weights.

The actual handling of this material by the pupil will serve to give him a vivid conception of numbers and their relation.

He can count all the material. He can play that the grains of corn are soldiers and can arrange them on the top of his desk and march them in twos, threes, fours, etc., as the teacher is

developing these numbers. The square inch tablets may be laid out on the pupil's desk to correspond with addition problems on the board, or may be made into rectangles to teach the multiplication table objectively. A rectangle made up of three rows of square inch tablets, with five in each row, gives a lively conception of the fact that three fives are fifteen. The child who lays out the rectangle in this way will have no difficulty in understanding that a rectangle five inches long and three inches wide will contain fifteen square inches. The use of the measures is too evident to require explanation. Actually to measure quantities is the only way in which a true conception of numbers can be derived. When conducted with concrete material, this work is as simple as it is fundamental.

The teacher of arithmetic can make good use of manila cards similar to those described under "Materials for Reading." On these cards may be placed the forty-five number combinations found on pages 10 and 11 of the Milne Arithmetic, First Book. As a quick drill these cards may be held up for a moment before the class and the sum given at a glance. For drill on the Multiplication Table, the same cards may be used.

If presented concretely, simple fractions are as easy to learn as simple whole numbers. If the pupil is allowed to cut a circle out of paper with a pair of scissors, fold it in the middle and cut it into two equal parts, half a circle is just as simple an idea as a whole circle. With paper circles, strips of paper to be folded into equal parts, or rectangles made up of the inch squares described above, much work involving simple fractions may be presented at an early period in the study of arithmetic.

As soon as the child has learned to count, the decimal system of writing numbers may be effectively illustrated by tying tooth picks into bundles of 10, and these into bundles of 100. The operations of addition and subtraction, involving carrying and so-called "borrowing," may be easily made simple by some such device as the following:

Two children, Mary and Susan, are called to the desk and Mary is given thirty-seven sticks and Susan forty-five. The sticks are arranged in bundles of 10 as far as it is possible, and it is understood that in the operation whenever 10 sticks get together, a band is to be placed around them. Mary and Susan are asked to give their sticks to Ellen. After receiving them, Ellen finds that she has seven bundles of 10 each, and 12 loose

sticks. She takes 10 of the latter, puts the band around them. She then has eight bundles and 2 loose sticks, or 82. The teacher then shows on the board the operation of adding 37 and 45.

Now suppose that Ellen wishes to give 45 sticks back to Susan. She must give her 5 sticks and 4 bundles. Since she has only 2 loose sticks, she must take the band from one of the bundles of 10 and give Susan 5 of the 12 loose sticks she will then have. After giving these and 4 bundles to Susan, she will have left 3 bundles and 7 sticks, or 37.

When the teacher has accompanied this concrete work with the numerical operation on the board, the class will have a very definite idea of the process usually known as "borrowing."

Suppose Susan wishes to divide 45 sticks equally among Henry, John, and James. Each boy holds out his hand; she gives one bundle to each. She then takes the band off the other bundle and divides the fifteen loose sticks among the three boys. If, at the same time, the teacher places the figures on the board and performs the operation of short division, the child will readily see the reason for the operation. In a similar manner multiplication may be illustrated concretely.

Every teacher should make the following simple device for teaching decimal fractions and percentage: On a piece of cardboard mark off a perfect square foot, divide the sides of the square into ten equal parts, and draw lines dividing the square into 100 smaller squares. In like manner, take one of the small corner squares, divide its sides into ten equal parts, and by lines divide it into 100 smaller squares. With the square foot thus divided we may show tenths, hundreds, thousands, and ten-thousandths, and may illustrate the operations in decimal fractions.

The adopted text-books contain many references to concrete material. This should be provided wherever possible.

First Grade and Advanced First Grade.

The work of these grades should include:

1. Counting—

The pupil should count the number of children in his class, the number of desks in a row, the number of desks in the schoolhouse, a pile of sticks given him by the teacher, piles of corn, beans, or pebbles, until he can count accurately to 100. He should be taught to count his bundles of sticks or pine needles into tens,

and to place a rubber band about each, and to count to 100 by tens.

2. Comparison—

He should be taught to compare lengths and areas. The teacher should draw on the board eight or ten lines of different lengths, and should ask such a series of questions as this: Which is the longest line? Which is the shortest line? How many lines are shorter than this one? How many are longer? Or she may draw on the board a number of circles of different sizes, and should ask concerning them questions such as these: Which is the largest circle? Which is the smallest circle? How many circles are smaller than this one? How many are larger?

3. Measurements—

The pupil should be taught to use the foot rule in measuring lengths in the class room. After he has acquired some idea of measurements he should be taught to estimate lengths with his eyes and then test his accuracy by actual measurement. In this way he should estimate and measure the length of the blackboard, the width of the door, the height of the window, etc. He should be asked to stand one foot, two feet, or four feet from the wall, and should then measure to ascertain how correctly he has guessed the distance. Using the foot rule, with its inch divisions, the pupil should be taught to cut pine needles into one-inch lengths, two-inch lengths, five-inch lengths, etc. With the pint and quart cups he should be taught to measure a quantity of sand or sawdust. He should be allowed to measure a bucket of water and find out how many pints it contains, and how many quarts. He should determine how many pints make a quart, how many pints make a gallon, how many quarts make a gallon. The teacher should make some little sand bags weighing one ounce, two ounces. four ounces, six ounces, and one pound, and should have the children compare these weights with other weights.

4. Writing Numbers—

During the first year the pupils should be taught to write numbers to 100 and should learn to read the Roman numerals to X.

5. Simple Oral Problems—

With this work should be combined exercises in combinations of numbers with the sticks, or the pine needles. A one-inch stick should be placed at the end of a two-inch stick and the added length determined. A two-inch stick and a five-inch stick should in the same manner be placed together and the length deter-

mined. In a concrete manner the teacher may thus determine the principal facts of addition and subtraction involving small numbers. Pupils should learn to solve simple problems, such as: "If Mary has three apples and Sarah has two, how many apples have both?" "If John has five apples and gives Mary two, how many has he left?" "How many apples must I have in order to give Mary, Sarah, and John two apples each?" They will show a natural interest in problems involving small purchases and the making of change.

The Text Books.

Milne's Progressive Arithmetics have been adopted for use in the schools of South Carolina. The teacher will find the assigned work for each grade in the course of study on page 28 of this Manual. The First Book is to be placed in the hands of the pupil in the second grade. The text books are well graded and are constructed on a very definite plan. The teacher who accomplishes the work as outlined in the order of the books will not go far astray.

Follow Logical Order of Presentation.

In the presentation of a subject the teacher should be guided by the natural order of difficulty. The following are suggested as logical steps in presentation:

Addition—

1. Concrete work to develop the meaning of addition.
2. The learning of the 45 combinations known as the addition table, so that the sight of any two digits for addition immediately suggests their sum.
3. The addition at sight of a number of two digits and a number of one digit, such as 34 plus 5, or 34 plus 8. Make this concrete with the bundles of tooth picks as already described.
4. The addition of two numbers of two digits each, involving carrying. Illustrate concretely by the bundles of sticks.
5. The addition of columns of one digit numbers.
6. The addition of two or more columns.
7. Drill to secure speed and accuracy.

Subtraction—

1. The subtraction table. This should be learned as the reverse process of the addition table, and the two should be taken together.

2. The subtraction of numbers in which each digit of the subtrahend is less than the digit of the same order in minuend, as 521 from 834.

3. The subtraction of numbers in which certain digits of the subtrahend are larger than the corresponding digits of the minuend. This process should be illustrated concretely by operations with bundles of sticks.

Multiplication—

1. The development concretely of the meaning of multiplication by the arrangement of the rectangle of tablets as previously mentioned, or by some other device.

2. The learning of the multiplication table, so that the sight of any two digits for multiplication will immediately suggest their product.

3. The multiplication of a number by a digit when no product is greater than nine.

4. The multiplication of a number by a digit when one or more products are greater than nine.

This may be illustrated by the use of the bundles of sticks. Suppose 34 is to be multiplied by 4; 34 sticks make three bundles of 10 each and 4 loose sticks. To multiply 34 by 4 means to take the number 4 times. Four groups each containing 3 bundles and 4 sticks are laid out on the top of the desk. When the pupil puts the loose sticks together, he takes 10 of the 16 and ties them into one bundle. He places this bundle with the other bundles of ten. He then has 13 bundles of ten. He takes 10 of these, ties a string around them, and makes a bundle of 100. The operation with the sticks should accompany the work at the board.

5. Multiply by 10, 100, 1,000.

6. Multiply by any number. The pupil will readily see that to multiply by 324 means to multiply by 300, by 20, and by 4, and add the results.

7. The teacher should make it clear at every step that the multiplier must be an abstract number. It simply shows how many times we take the multiplicand. Let him see clearly that there is no such thing as multiplying $5.00 by $5.00.

Division—

1. The learning of the division table, which is the converse of the multiplication table and which should be taught at the same time.

2. The development of the two ideas in division—

(a) 15÷3, may mean "How many 3's in 15," or

(b) It may mean "What is one-third of 15?"

The teacher may have 15 marbles on the desk. She may ask: "To how many boys can I give 3 marbles each?" She picks up three at a time and gives them to five boys in succession. There are five 3's in 15. She may ask, "If I divide the 15 marbles among three boys, how many will each get?" The easy way to do this is for the boys to hold out their hands while the teacher gives the marbles around one at a time till they are all distributed. Each boy will get five marbles. One-third of 15 is 5. In the first case the pupil will say "You can give them to as many boys as there are 3's in 15, or five boys." In the second case he will say, "Each boy will receive one-third of the 15 marbles, or 5 marbles." The teacher should drill on simple problems till these two meanings of division are perfectly definite.

3. The division of any number by a digit. The sticks may here be brought into use as previously described under "Concrete Material and Its Uses."

4. The division by any number, viz., long division.

(a) The first step in long division is to work a problem in short division with which the pupil is already familiar by the arrangement used in long division.

(b) Use as divisors numbers consisting of a digit and one or more ciphers, as 40, 300.

(c) Use divisor in which the digits after the first are small, such as 41, 302, 511.

(d) Gradually increase the complexity of the divisor and teach the pupil to approximate the digits of the dividend.

Fractions—

1. Have abundant concrete work in cutting and folding slips of paper, circles, etc., to develop a definite idea of the meaning of fractions. One-fourth of a foot is just as easily understood as a foot if the child sees the object and works with it. The teacher should take foot strips of cardboard and divide them into halves, thirds, fourths, fifths, eighths and twelfths and should label each division. The pupil should be given these test measures and blank strips of paper which he should cut into foot lengths and on which he should mark the sub-divisions. By actual application of the strips to the test lengths he should answer such questions as these: In one half a foot how many fourths of a foot? One-fourth equals how many eighths? One-half equals how

many eighths? If you cut one-third of a foot from one-half of a foot, what length will you have? Add one-half of a foot and one-quarter of a foot. How many fourths of a foot in a foot and a half? With such exercises the fractions 1/2, 1/3, 1/4, etc., become units which he uses in measuring. All introductory work should be concrete and oral, and should be gradually introduced from the second grade. In this way he should learn the equivalents of all fractions whose denominators are not greater than 12, and should be able to add and subtract these fractions.

2. He should then be taught the written form of the operation as a basis for work with larger denominators.

3. From the concrete oral work should be developed the three principles of operation in fractions:

a. A fraction may be multiplied by multiplying the numerator, or by dividing the denominator.

b. A fraction may be divided by dividing the numerator or by multiplying the denominator.

c. Multiplying or dividing both terms by the same number changes the form but does not alter the value.

He should also know the process of reduction to lower term, of reduction to a common denominator, addition and subtraction.

4. The teacher should insist on neat and compact arrangement of all written work. In adding and subtracting mixed numbers, teachers sometimes make the mistake of allowing them to be reduced to improper fractions. Only the fractional parts should be reduced to a common denominator.

5. In multiplication of fractions, when the multiplier is a whole number, it is best to read x as *times*, as 4x4/5 will be read, 4 *times* 4/5. When the multiplier is a fraction, it is best to read x as *of*. 2/3x12 should be read, 2/3 *of* 12. Multiplication will offer no special difficulty to the teacher who has developed orally the three principles previously mentioned.

6. The division of fractions by an integer is merely an application of one of the principles and offers no difficulty, but division by a fraction requires considerable analysis. It may be developed by a series of questions somewhat like the following: "How many fifths in 1?" "Five fifths?" Let us put the question in another way; "How many times is 1/5 contained in 1?" "5 times." "Since 2/5 is twice as much as 1/5, how many times would 2/5 be contained in 1?" "Evidently just 1/2 of 5 times, or 5/2 times." "How many times would 3/5 be contained in 1?"

"1/3 or 5 times, or 5/3 times." When we compare the divisor 1/5, 2/5, 3/5, with the quotient 5, 5/2, and 5/3 we see that the fractions inverted shows how many times it is contained in 1. "If 2/5 is contained in one 5/2 times, how many times would it be contained in 2?" "Evidently twice 5/2 times." "How many times in 4?" "4 times 5/2 times." "In 2/3?" "It would be contained 2/3 of 5/2 times." We may then state the general rule for division of fractions, "Invert the divisor to find how many times the fraction is contained in 1 and proceed as in multiplication."

7. There are three forms of analysis upon which most problems in fractions and percentage are based. The problems involving these analyses may be stated as follows:

a. Find 2/3 of 15.

b. 3 is what part of 5?

c. If 2/3 of a yard of cloth cost 12c, what will a yard cost?

It is the third form which usually gives trouble. A graphic representation will usually make it clear. Draw on the board a line a yard long to represent a yard of cloth. "Since we have given the price of 2/3 of the yard, it is necessary to divide our line into thirds. In the problem we have given the price of two of those thirds as 12c, what would one of them cost? If one third-of-a-yard costs 6c, what will three thirds-of-a-yard cost?" The secret of success in this analysis is in directing the attention of the pupil away from the yard as a unit and to the third-of-a-yard.

Oral and Mental Arithmetic.

In the first three years of arithmetic, oral work largely predominates and at no time should it be neglected. Usually the arithmetic period should open with a brief "setting up exercise" in quick oral work. Every new subject should be introduced with a set of illustrative oral exercises involving small numbers. The pupil should be taught to solve his problems without paper or pencil whenever numbers are small. The teacher should drill in oral analysis until the typical forms of analyses have become second nature to the pupils. In the solving of problems involving larger numbers, an oral analysis should frequently precede the written work. After the pupils have mastered the principles, the teacher should give them short methods of arriving at results.

Practical Application of Arithmetic.

The final test of arithmetic teaching is the pupil's ability to apply his knowledge to the problems which arise in practical life. Arithmetical principles are universal, but in their application there is an infinite variety, dependent on the particular industries of a community. No book can be specific as to the particular needs of every community. To make this special adaptation is the work of the teacher. It should be her endeavor to gather a special set of problems based on the needs of the community in which she is teaching, and thus to a certain extent, break the shock of entrance into practical business, which is frequently so embarrassing to the school graduate who attempts to apply his school arithmetic. If she teaches in town, she can easily obtain from business men lists of problems which will illustrate the arithmetic which they use in every day practice. The Charleston Consolidated Railway, Gas & Electric Company once furnished the author of this Manual with a complete set of illustrative problems, beginning with the checking of the conductor's cash register, including the reading of gas and electric meters, the making of bills, the calculation of discounts, making the pay roll, and ending with the monthly balance sheet of receipts and expenses for the various divisions of the corporation. Such a set of problems would illustrate arithmetical principles just as well as any found in the book, and in addition would be immediately applicable to the business involved.

The country teacher especially has an opportunity to make her work concrete and practical.

1. She should have her class in mensuration cut a pole a rod long, and with it they should lay off a piece of ground ten rods wide and sixteen rods long, and should thus obtain a definite idea of an acre. They should measure the school yard and estimate its area in acres, the amount of fence necessary to enclose it, and the cost of the same.

2. Let them measure off a twenty-acre field in various shapes and estimate the cost of fencing.

3. With a given length, let them estimate the width necessary to a prize acre of corn, or one-tenth of an acre of tomatoes.

4. Have them estimate the yield of an acre of corn by counting the ears for ten feet on an average row, reckoning 140 ears to the bushel. Teach the boys to keep an account of the cost of labor

and of fertilizer used on the prize acre, and estimate the total profit and profit per bushel.

5. Let them solve such problems as this: If an acre of cotton has four-foot rows, and a plant containing fifty bolls could be raised every three feet in a row, how much seed cotton could be grown upon an acre? How much lint?

6. Let pupils measure the school room and find its capacity and its inside surface. If proper hygiene requires that every pupil have 600 cubic feet of air space, how many pupils should be placed in the room? Find what it would cost to paper or plaster the room and to carpet the floor.

Teachers in country schools should give special attention to the problems in farm arithmetic which will be inserted as an appendix to the Second Book of Milne's Arithmetic.

A Few Miscellaneous Suggestions.

1. The teacher should not attempt to go too rapidly, but should treat each subject thoroughly. Much of the poor work which we see in arithmetic arises from the fact that the pupil has never learned anything thoroughly enough to feel sure of his ground. His work is to him a constant drudgery from which he derives neither pleasure nor profit.

2. It does little good to have the pupil repeat the multiplication or division table in order. The numbers never come in this order in practical problems. Emphasize rather the rapid drills described on pages 44 and 105 of the first book.

3. Emphasize time tests, such as those given on pages 155 and 193 of the first book. Let the pupil see that he can improve in speed and accuracy. Make the exercise simple at first, and increase the difficulty as the pupil improves. Do not let him become discouraged. Require a neat, compact arrangement of all written work.

4. Emphasize quick oral drill with small numbers, such as, 5 plus 9, divide by 2, add 15, add 3, divide by 5, multiply by 7, how many?

5. One of the most valuable kinds of training which the teacher can give is in approximating answers and applying common sense to results. I once saw a pupil who was working a problem which involved the cost of a turkey. The answer he obtained was $36.50 and he announced the result with due form and

solemnity. Common sense should have told him that this price was a little high for turkeys. He had mistaken the position of the decimal point.

On page 181 of the first book, there is a written exercise consisting of problems involving division. Let the pupils read the problems carefully and answer such questions as these:

Problem 1—Is the answer more or less than $0.25?

Problem 2—Did it cost more or less than $0.50?

Problem 3—Guess quickly at the cost.

Problem 7—Is the answer more or less than 100?

6. Do not assign home work in arithmetic till you have given such instruction as will enable the pupil to do it without assistance from parents or other relatives. The parent should not be expected to teach the child. When the parent does the work, the pupil secures from it the same kind of benefit which a proposed athlete would derive from standing in the gymnasium and watching another swing the clubs or punch the bag.

Helpful Books for Teachers of Arithmetic.

Hall, *Arithmetic Primer.*

Dunton, *Arithmetic in Primary Schools.* Silver, Burdett & Co. $1.00.

McMurry, *Special Methods in Arithmetic.* MacMillan Co. 70c.

HISTORY.

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General Aims.

The course of study in history for the elementary schools divides into three stages: (1) For Grades I, II, III, and IV, a course in story telling, conversations, and selected readings; for Grades V and VI, a series of biographies so grouped chronologically as to present a continuous historical narrative of United States History, as given in White's "Beginners' History of the United States," and of the history of South Carolina, in White's "Making of South Carolina"; (3) for Grade VII, a more formal and systematic study of national history, with Thompson's "History of the United States" as the text.

A glance at the course reveals at once that the method of instruction, up to the seventh grade, must be almost entirely oral, and that to the teacher has been left the selection and adaptation of material. It follows, therefore, that successful work in these grades demands, as essential qualifiations of the teacher, broad and thorough knowledge of the subject, and skill in the art of telling stories. Moreover it is essential that the teacher shall recognize the general aims of history teaching, and the specific value of each lesson given in realizing these aims. The intelligent teacher will bear in mind that it is not sufficient to entertain with stories chosen at random. Each selection must make some definite contribution to the child's stock of historical knowledge, and must vividly teach some moral or ethical truth. The ends to be sought here are both immediate and remote: immediate in effect on the child's moral and social sensibilities by making such appeal to emotions and such impress of ideas as will affect the child's character, and remote in storing the memory with masses of facts and incidents that later on may be organized and related when the formal and systematic study of history is undertaken. Other important aims of the primary history course are, the stimulation of the pupil's interest and enthusiasm, and the gradual development of power to gratify his increasing desire for knowledge through the mastery of books.

The reason for the child's verdict, so familiar to teachers, "I hate history," is easily accounted for. Instruction in the subject is postponed until that stage in his school course when it is presumed that he can read well enough to study, and then he is presented with a so-called primary history, a condensed statement of dry facts with all the life and vital interest squeezed out, and is directed to memorize this in small doses. The words without ideas soon fade away, and disgust for the subject remains.

Though the great majority of children leave school before reaching the fifth grade, the course of study makes no provision for text-book study before that stage, because the nature and purposes of the subject and the needs and capabilities of the child point to direct oral instruction as the only means of realizing the true ends of teaching history to children in these grades.

Without intention of encroaching on the liberty of selecting, arranging and presenting the subject matter thus wisely granted to primary teachers, the following suggestions are offered.

Suggestions for Primary Teachers.

1. Celebrate Thanksgiving Day, Christmas, and the birthdays of State and national heroes, including warriors, statesmen, explorers, inventors, and philanthropists. The talks, stories, drawings, collection and study of pictures, simple and dramatic representations preparatory to and in connection with these celebrations serve to apply the laws of association and interest, and therefore make vivid and indelible impressions. Miss Poulsson's book, "In the Child World," contains excellent suggestions of programs for primary grades.

2. In the first and second grades, use myths, legends, folklore, and stories of primitive life, mainly of the youth of great men and women, paying no attention to time and space relations which as yet have no value or meaning for children of these grades. "Somewhere" and "long ago" will serve to fix time and place.

3. For children of the third and fourth grades, the teacher should plan a series of biographical stories selected from the pioneer history of our country, the legends found in Homer and Vergil, and the lives of Greek, Roman, and Teutonic heroes and sages. Certain Bible stories are also excellently adapted to these grades. At this age, heroic stories, especially those involving the encounter of dangers and the overcoming of obstacles, make deeper and more lasting impressions than at any other period in the child's life. In connection with these stories, let the pupils memorize songs and poems that embody or illustrate the historic facts.

As the amount of appropriate material is vast, teachers are urged to estimate the number of subjects possible to use in a term, and to make sure that each one selected has its distinct and definite teaching aim. Not only should each selection present a fact really worth remembering, but also should teach a lesson in courage, self-sacrifice, patriotism, self-reliance, or perseverance. Do not crowd your pupils with stories. Save time for the repetition of good stories. In making selections for the term's work, let quality rather than quantity have chief consideration. The course for these grades should comprise two lists, one of stories to be told or read to the children, and another for the children to read. The following books may be helpful in making up the course; for others see the library list:

"Robinson Crusoe."

"The Tree Dwellers," Dopp.

"The Early Cave Men," Dopp.
"The Later Cave Men," Dopp.
These four are named as offering an insight into primitive life.
"Fifty Famous Stories Retold," Baldwin.
"Stories of Great Americans for Little Americans," Eggleston.
"Wandering Heroes," Price.
"Ten Boys," Andrews.
"Short Stories from English History," Blaisdell.
"Stories from the Bible," Church.
"How to Tell Stories to Children," Bryant.
"Special Method in History," McMurry.
"Course of Study for the Columbia City Schools."

4. As in selecting, so in treating history stories, the capabilities and natural interests of the child should guide. At this age your pupil can not be interested in logical relations. The memory and imagination are the agencies with which the teacher must work. If the story is presented simply, vividly, and dramatically, so that the child's imagination is excited to the extent that he identifies himself with the hero, strong and lasting impressions will result. To be of value, each impression should have some concrete expression. This may be provided for in various exercises calling for memory and imagination, such as crude attempts to illustrate with drawings, acting the parts, and re-telling the story orally or in writing with the aid of outlines made by the teacher. In presenting the story, the teacher must aid the pupil's imagination with objective illustrations. For this purpose make blackboard drawings and sketches, clip pictures from books and magazines, and purchase the excellent and cheap historical pictures published by the Perry or Brown Companies. These helps enable the pupils to form clear conceptions of the dress, houses, manner of life, customs, and peculiarities of the people told about as nothing else can.

This faculty of making vivid images of men, places, and events is not only immediately beneficial to the child, but also will be of inestimable value to him in his future study of history. Says Charles Eliot Norton, "The imagination is the supreme intellectual faculty, and yet it is of all, the one which receives least attention in our common systems of education. Upon its healthy development depend not only the sound exercise of the faculties of observation and judgment, but also the command

of the reason, the control of the will, and the quickening and growth of the moral sympathies."

While memory and imagination should be most prominent at this stage, simple exercises in judgment should also find place. Lead your pupil by apt questions to make comparisons and inferences on the basis of his experiences and the facts remembered from previous stories. Give him problems, such as, what would you or some person known to you, do in a situation similar to that just narrated? Do not impose your own opinions upon the child. The end of training the child's judgment is most readily defeated by accustoming him to repeat only opinions from books or such as he infers are in the mind of his teacher.

5. A beginning may be made in these grades of mastering history lessons from books. Assign simple selections from school readers and library books, and call occasionally for oral or written reports to be made to the class. Whenever you excite or discover a special interest on the part of a pupil in a given topic, assist him to find additional reading on that subject. As an aid to finding suitable reading, just when it is needed, it would be helpful to prepare an index of literary and historical matter to be found in the readers used in the several grades, and of books in the school library. Keep this index posted in the class room. Here too a beginning may be made in training pupils to use the indexes of books.

Suggestions for Grades V and VI.

1. The text-book for the fifth grade presents continuously the story of the nation. Heretofore the pupils have dealt with the stories of events and individuals in a disconnected way. Now for the first time he will study the complete story of a people. It will be advantageous to the pupil to get this extensive view in a short space of time, and therefore it is recommended that the class be encouraged to read the book as a whole, as rapidly as possible, before proceeding to an intensive study of the several periods. Thus will be provided a broad frame work, in which to fit the details. Moreover this plan will enable the pupil to get an idea of the relation of each group of men and events to the whole.

The lessons in the two texts for these grades continue the method of biography obtaining in the oral instruction of the primary grades, but now the relations of time and space should

begin to receive emphasis. From this time on, throughout the elementary school course, the effectiveness of instruction in history involves fixing in close association men, events, time and place. Only dates, however, that mark off periods and those of very important events should be memorized. At this stage, and in all succeeding study of history, the teaching of each topic requires the use of historical maps and charts. Geography and history, to a certain extent, are one, and are best studied together. Historical instruction without the constant accompaniment of geography has no solid foundation, is all in the air. Association of space is as effective as that of time in memorizing history. Pupils should be trained to study each history lesson with the appropriate map open, and a wall map, or preferably one sketched on the board, should be in evidence at each recitation. In addition, pupils should make outline maps to be used for several profitable exercises such as tracing routes, indicating growth of territory by color, and for teaching other historical facts that may be shown graphically.

2. At the end of each period take time for reviews. These may follow the method of comparing the men of each group with one another as to their motives and achievements. Also compare biographies and events given in the text with similar ones chosen from European history. Constantly call into play the child's store of historical knowledge gained in previous grades. For parallel study with biographies taken from South Carolina and national history, select for reading and discussion lives chosen from the numerous biographical histories of European nations. Guerber's series, "Stories of the Greeks," "Stories of the Romans" and "Stories of the English" are excellent for this purpose. Some boys at this age can be interested in Plutarch's Lives.

3. Do not make the study of history in these grades a humdrum recitation of words from the book in answer to questions found at the end of each chapter. Recitations by the topical method produce the best results. Train pupils to make the outlines. With these on the board, require the pupil to give the connected narrative of the whole or of one of the main divisions. Impress upon the child that he is to tell a story to his fellows. Invite additions to the story as given in the text. Follow these recitals with questions and free discussions.

4. In connection with the work based on "The Making of South Carolina" there is excellent opportunity to make history real by bringing out local connections, studying accessible monuments, pictures, and scenes of historical interest. The teacher should be well versed in the history of the locality in which he teaches as well as in that of his State. It is important in this study of South Carolina history to bring out the relation of the State to other sections. This may be done by frequent comparison of men and events of our history with those of other States, and by emphasizing their influence on the current of national events.

5. If you would command the attention of your pupils, their interest, and above all their confidence and respect, know more than is in text books and, unless for reading, never appear before them with the text book in hand.

Suggestions for Grade VII.

1. The text-books adopted, like all others commonly used in this grade, is an epitome of the history of the United States. Of necessity as many of the facts as possible are presented in a limited space. It is expected that the teacher will avoid the grave mistake of "just teaching through the book." He must determine what parts need emphasis and extensive treatment and what should be simply read or used for reference. The teacher must be prepared to supply from his own store of knowledge and other accessible sources the illustrative and vivifying details. As an aid to this necessary process of selection, McMurry recommends the examination of Judson's "Growth of the American Nation," "As an attempt to leave out as many of the so-called important facts of our history as possible, in order to get the really important events and persons into striking profile before the eye."

2. Suggestions here as to organizing and presenting the subject matter would be superfluous as those given in the appendix of Thompson's History, if studied and diligently followed by the teacher, will ensure effective teaching. There will be found practical suggestions as to questioning, the use of topical analyses, sketch maps, review work, etc. The suggested parallel readings in history and literature given under each topic, and the references for teachers and pupils to source material and standard histories deserve the most careful attention and study of teachers who intend to use this book.

Debates and Current Events.

The discussion of current events, and debates on historical questions are excellent means of supplementing the history course of this grade. These exercises give pupils the occasion for recalling and applying their knowledge of history, and thus it becomes a real and permanent possession. The preparation for debates will give training in the use of history texts and other works of reference. Lessons on current events will serve to establish the point of contact between the events of the present and what the pupils have been studying, and thus they will help young people to realize that history is continuous and alive, and that their own lives form part of it. These exercises afford excellent means of training in practical judgment, an aim second only in importance in the elementary schools to that of mastering the leading facts. Balancing opposing forces, comparisons, consideration of two sides of situations, arguing from probabilities, tracing present day events to their causes in the past, train the boy in that kind of reasoning for which he will have most constant need in life. Says Lecky, "History is one of the best schools for that kind of reasoning which is most useful in practical life."

CIVICS AND CITIZENSHIP.

The final test of a school system in a democracy is the answer to the questions, Does it produce good citizens? Is the man who is the product of its training imbued with ideals of justice to all men, obedience to law, and fidelity to public trust? Is he efficient as an individual and can he easily co-operate with others for the public good?

To insure the perpetuity and prosperity of a democracy, there must always be a safe majority of law abiding people who *wish* to do the just and righteous thing and this majority must have the *will* and *ability* to make its influence irresistible when the inevitable struggle comes with evil, graft, and lawlessness.

Good citizenship is not, then, a mere matter of knowledge. It must include the *will to act* and the ability to act *effectually* when the need comes. When the State reckons its resources and its liabilities in citizenship, it must place on the debit side of the account not only the vicious man who deliberately wishes evil to organized society, not merely the man whose ignorance makes him the easy prey of the demagogue, but also the educated citizen

who knows what is right but who, through selfishness or indifference, fails to do his duty.

In training for good citizenship the teacher must continually have three elements in view:

1. The development of those virtues which all men recognize as fundamental in character, such as truthfulness, honesty, courage, fidelity, self-control, fortitude, self-reliance, co-operation, fair-play, and obedience to constituted authority.

2. A knowledge of the fundamental facts concerning the government of the city, the state and the nation.

3. The development of initiative and aggressiveness, of leadership and co-operation in fighting for the right.

In this training the school shares the responsibility with the home and with society in general. In the first element, especially, there will be marked differences among the pupils dependent upon the atmosphere of the home from which they come and the moral ideals which have prevailed in their environment.

The teacher who is herself imbued with firm principles and strong moral convictions, will unconsciously impress these convictions on her pupils. It is the testimony of his students that no man ever came into the presence of the late Dr. James H. Carlisle, President of Wofford College, without having his character lifted and strengthened. The teacher who possesses a strong, wholesome moral personality will unconsciously create a school atmosphere in which the best elements of character will grow. It may take time to dispel the gathered clouds, but the sunshine will finally triumph.

The play-ground has an important place in the development of the character elements in good citizenship. The play of the little child needs direction by the teacher, but as the pupils grow older the direction of their play should be placed more and more in their own hands. The spirit of the bully and the braggart should be frowned down. Cheating and unfairness should not be tolerated. A generous spirit of fair-play should be cultivated. The necessity of subordinating personal preferences to the will of the majority, develops unselfishness and self-control. The organization of the game and the "team work" necessary to success demands leadership and co-operation. The association of the pupils in the democracy of the play-ground develops self-reliance, courage, and truthfulness. A wise Englishman has said, "The battles of England are fought on the cricket fields of Eton

and Rugby." The teacher should enlist every good influence to create a school spirit opposed to dishonesty, lying, and littleness. For a century the honor system of the University of South Carolina has stood for the truth "No gentleman will cheat or lie." This traditional spirit of the University is its most valuable asset. In the games and contests of the play-ground, aim to develop generosity and courtesy to opponents. To struggle mightily for the victory, and to lose cheerfully are characteristics of the true sportsman. A well governed play-ground is a fine school for citizenship.

The teacher will also aim to develop the character ideals of good citizenship by carefully selected stories in which these ideals are exemplified. The stories of Joseph and Daniel, the tales of the Greek heroes, the story of King Arthur, and the legends of chivalry, the life of Columbus, Washington, and Franklin, of Lee and Jackson, of Calhoun and Hampton, and other heroes of history in public and private life, will inspire the adolescent boy with higher ideals of fidelity, steadfastness, courage, self-reliance, and honor.

Learning the Facts About Government.

As children are able to understand, the teacher will gradually introduce them to the elementary facts of government. She will use the home and the school as examples of simple forms of government. The pupil should learn that government does not exist merely because some people would do wrong, but because it is necessary for us all to work in harmony. If all pupils in school were perfectly good we should still need a program and definite ways of entering and leaving the classroom in order to save time and accomplish results. The government of the school itself should be such as to impress the child with a respect for authority. He should be taught to preserve the school house and its equipment and other public property from defacement and injury. The method of supporting the school, the building of public roads, the maintenance of the postoffice, and the carrying of the mails should be pointed out to him to illustrate facts of government. The school trustee and the County Superintendent of Education will visit the school, and these visits will furnish the occasion for introduction to public officers and their duties. The teacher should utilize the general interest in State and County elections to call attention to the names and duties of State and County officers.

The Text Book.

"Wallace's Civil Government of South Carolina" has been adopted by the State Board of Education for use in the seventh grade of the elementary schools. This subject should be given two recitations per week. The text book very wisely begins with the school district as the unit most familiar to the child and proceeds from this to the larger units. The teacher should, whenever possible, make the book work concrete by drawing her illustrations from the range of the pupil's knowledge. The forms and processes of law should be illustrated by moot court. The pupils might conduct an election for class officers in accordance with the machinery of State elections. The teacher should endeavor at every point to emphasize the responsibility of the voter as well as that of the officer in good government.

Training in Organization for Public Service.

The third element in the preparation for citizenship is the development of capacity for co-operation and leadership. Pupils should be taught how to organize a meeting and to conduct business in accordance with generally accepted usages. Sometimes an audience filled with good intentions disbands without action because there is no one to organize the meeting for business. Frequently when a meeting does organize, the chairman does not know how to proceed promptly, the business drags out until everyone is tired and goes home without action. The man with an "axe to grind" is frequently able to stampede a caucus or control a convention, simply because he has mastered the details of parliamentary proceedings. In a democracy every citizen should know how to organize a crowd into a deliberative body. The "annual school meeting" which prevails in many States is an admirable training in citizenship.

The pupils should be encouraged to organize into a literary society or into a club for the improvement of the school grounds. By actual practice, they should learn how to "make motions," "second motions," "put the question," "introduce amendments," "take the vote," "make nominations," "conduct elections," "draw up the constitution and by-laws," and to conduct simple business in accordance with parliamentary practice.

The minor duties of the school room should be placed in the hands of pupil committees and the teacher should encourage in

every way self-government by the pupils. In all this the teacher must, of course, have a guiding hand. It will be perhaps easier for her to rule as an absolute monarch, but this is not the best thing for a democratic citizenship. If we train children merely to follow the commands all their school life, need we be surprised if they follow the political "boss" after they leave school? They should be encouraged to organize and to work together for the common good. If they do not organize for good, the instincts of the adolescent boy and girl for organization may lead them to organize against the teacher and the discipline of the school.

Every school should have in its library a copy of Roberts' "Rules of Order" as a guide in parliamentary practice. The teacher should get from Clemson College a copy of a bulletin prepared by Prof. D. W. Daniel on "How to Organize and Conduct a Debating Society."

NATURE AND COMMUNITY STUDY.

Definition.—

We have already referred to the fact that each of us must interpret the spoken language which he hears, the book he reads, and indeed the entire physical and social world which surrounds us, in terms of his own experiences. We shall include under *Nature* and *Community Study* all deliberate attempts of the teacher to broaden the pupil's field of personal vision and to give him more exact and usable knowledge of life and its activities as a basis for these interpretations. It will include especially the elementary and fundamental observations and experiments which expand into geography and the natural sciences and which are utilized practically in agriculture.

Method.—

The very fact that this study deals with the special plant and animal life, and with the social and industrial conditions of the individual community, renders it impossible in this Manual to plan definitely the work for any school. The occasion and direction of the lesson will be determined largely by the incident and interest of the moment. The art of the skilful teacher of Nature Study is to stimulate the observation of her pupils by suggestions and well directed questions, and to seize upon the phenomena or the discovery of the day to teach lessons which

can be gradually expanded to cover the whole field which she wishes to explore. She may have planned a lesson on caterpillars when a bluebird starts a nest in the house which has been built for him. If she is wise, she will postpone the lesson on caterpillars and will make the nest building the centre of instruction as well as of interest. I once knew a teacher who had started a series of lessons on the ways in which plants propagate themselves. She had put a small sweet potato in the mouth of a glass jar filled with water and the class was observing the growth of the sprouts as typical of one mode of propagation. One day a pupil discovered some moving objects in the water in the jar. They were mosquito "wigglers." These at once became the centre of absorbing interest. The potato was removed to another receptacle; the jar was covered with netting, and the class watched some of the larvæ develop into the pupa stage and finally come out as full grown mosquitoes. They took some kerosene, covered the surface of the water with it and noted its effect on the larvæ as they came to the surface to breathe. They discovered the method of exterminating the mosquito, learned the office of the mosquito in carrying malaria and yellow fever, and finally organized an anti-mosquito club. It would have been a mistake for the teacher to neglect the subject of absorbing interest because it was not in her immediate plan. It would have also been a mistake to dismiss the mosquito with a superficial treatment. In the meantime the study in propagation continued without interruption. The school will frequently be conducting at the same time many studies in which the pupils are interested. This should not be regarded as a dissipation of energy. It is only in this way that the pupil may discover the inter-relations which constitute the unity of nature.

Nature and Community Study should never be allowed to degenerate into a series of talks and lectures by the teacher. To perform its true function, it should consist mainly of suggestions and directions by the teacher, observations and activities by the pupils, and conversations to summarize results.

The teacher should use to the fullest extent the exploring and collecting instincts of the child. The individual collections of the pupils may be gathered into a school museum which, in the main, should be made over each year. The collection of significant material under the impulse of a lively interest, and not the

mere possession of dead curiosities, should be the motive of the school museum.

The work does not require a long period on the daily program. Much of it will come incidentally in the teaching of the other school subjects. If properly conducted, it will make an excellent "waking up" topic for the opening exercise. As soon as they arrive at the school house in the morning, the pupils will usually hasten to observe any experiment which is being conducted. During the long recess period, the teacher and a selected class of pupils may make short excursions in search of material. Occasionally a Saturday may be devoted to a visit to some local industry, or to an excursion for more extensive search and observation. Much of the mounting of specimens will be done at home. With the lower grades, the Nature Study will furnish material for the language lesson provided for on the daily program. In the upper grades it will furnish subjects for compositions.

Special Equipment.—

Nature herself has provided the equipment for nature study. No expensive apparatus is necessary. It is desirable that every school room should be provided with a large glass bowl or aquarium, a covered wire gauze box for watching the development of insect life, and a small simple microscope, which can be bought for 30c. The school will need some large sheets of card board for mounting specimens. The boys can make some shelves for the "museum" and such boxes and trays as are needed for germination experiments.

The Preparation of the Teacher.

While nothing is more stimulating to the individual pupil and to the school as a whole than a well planned lesson in nature study, there is no subject which requires more general and special preparation by the teacher. It is necessary for her to study thoroughly the community in which she is teaching. She should know the essential facts of its plant and animal life, should learn its resources and its industries, and should appreciate the elements of natural beauty which it possesses. She should read and study at least one of the following books:

Hodge, *Nature Study and Life.* Ginn & Co.

Coulter & Patterson, *Practical Nature Study.* Appleton.

Holtz, *Nature Study.* Scribner.

Bailey, *The Nature Study Idea.* Doubleday, Page & Co.

Hemenway, *How to Make a School Garden.* Doubleday, Page & Co.

Bailey, *The Training of Teachers of Agriculture in Public Schools.* U. S. Bureau of Education.

Teachers should send to the U. S. Department of Agriculture for a list of the publications of that department. From this list they should select those which promise to be helpful in their work, and should send a request for them. They will be mailed free in most cases. Some of the most helpful material now in existence is published by this Department for free distribution.

The school library should contain a well selected and graded collection of books relating to nature study. The pupils should be sent to these books when they have exhausted their own resources. After a lesson on birds, in which the pupil has become interested, it is most natural for him to want to read something more on the same subject. The library should supply his wants. The State library list adopted by the State Board of Education, contains many excellent books related to nature study.

Classified Suggestions on Course in Nature Study for Elementary Schools of South Carolina.

In the space which can be devoted to this subject in the Manual, it will not be possible to arrange a course in nature study by grades. The indefinite date of opening and the variable length of term in the schools of South Carolina would render it impossible to follow a course arranged by months. With a few classified suggestions, therefore, we must leave the details to the teacher herself. It is not intended that any teacher should attempt to teach all the topics under one head before passing to the next. Some of these topics will continue throughout the year, and with others the season and the material at hand will determine the lesson for the week. The outline will serve as a sort of guide to the teacher in the selection of material and will enable her at the end of the year to check the ground covered.

The Soil.—

Let the children collect samples of the soil found in the school district. It may be classified into sand, clay, and loam. A small bottle of each should be put in the school "museum." If any characteristic rocks are to be found in the school district,

these should also be collected and studied. In many sections of the Piedmont the children may easily trace the processes in the formation of soil. In some railroad cut or deep cut in the road, they will find at the surface a fine sand mixed with rotten leaves and vegetable matter. Underneath, the sand becomes coarser and coarser until it merges into a more or less solid rock. How was the soil formed? It will be easy for the child to understand that the rotting of the rock under the influence of the rain and weather has produced the soil of the cultivated field. When the loam, sand, and clay make up the soil, the child should discover the relative position of each.

How are sand and clay used in road building?

The teacher should lead the child to observe the process of erosion in the soil. Let him note the color of the stream after a heavy rain and arrive at the cause of the coloration. Let him discover what kind of soil washes most readily, and trace the formation of gullies. This erosion which he sees around him is the universal process in nature and his observation will be a basis for understanding the larger phases of erosion. After a freeze call the attention of the class to what takes place on the sides of a cut on the country road. Note the disintegrating process and the dropping of the soil down the sides of the cut.

Let the pupils determine what kind of soil holds most water without becoming muddy. This may be shown by talking equal quantities of sand, clay, and garden loam and pouring measured quantities of water on each. Let them decide which kind of soil dries most readily after a rain. In which kind would a plant grow longest without rain?

The pupils should test the fertility of these different kinds of soil by planting corn or beans in boxes containing clay, clean sand, and garden loam and noting in which the plant makes most rapid growth. Take your class out under a tree where the leaves have fallen for several years. Let them note the condition of the leaves on the surface and the changes which occur as they dig deeper into the soil. They will thus see that what we ordinarily know as soil is either sand or clay, or a mixture of the two filled with rotting vegetable matter, or humus. Let them test the effect of this dark soil, or humus, on a growing geranium plant. Let them plant a few grains of corn in a box of pure sand and other grains in a box half sand and half humus, and note the difference in growth. Then let them dissolve some black woods-earth in a

jar of water and with the solution water for a few days the corn planted in sand and observe the result. When it rains, have them observe what becomes of the water which falls on the hard road and that which falls on the plowed garden. Which takes in more water? Why should a farmer break his land deep? Which dries out more quickly, the loose soil or the hard soil? Let them test the effect of keeping the surface loose on the power to hold moisture. The teacher will carefully develop the fact that the soil furnishes the plant with part of its food and that it also serves to hold the roots so firmly that the plant will not be blown away.

Distance and Direction—

Have children observe where the sun rises and sets in September, and from this starting point, teach the cardinal points of the compass. Where does the sun rise in June? In December? Drill on directions until they can tell the direction of the prominent places on the school district from the school house. Teach them to find "the big dipper" and the North Star for determining directions at night. The teacher should endeavor to give the pupils a very definite idea of distance. They should fix on some object one mile from the school house and should judge other distances in the neighborhood. Let pupils ascertain how long it will take them to walk a mile. See how far a ten-year-old boy can throw a baseball and determine how many throws he must make to carry the ball a mile. With the assistance of the teacher, the pupils should make a simple map of the school district showing the location of the roads and farm houses and the principal objects of interest. They should estimate the distance between the school and the homes of the pupils, and between other places in the district.

Weather—

The school should be provided with a thermometer, and the pupils should be taught how to read the temperature from it. The outdoor temperature should be taken by some younger pupil as soon as he comes in the morning, and again at noon and at the close of school. A record should be kept and the readings should be compared. As the year passes progressive changes in the temperature should be noted, and these should be associated with the position of the sun in the heavens. A stake should be set up in the yard and the length of its shadow measured *at noon* at the beginning of the school term in September and at intervals

until Christmas. Is the shadow growing longer or shorter? Why? From Christmas to May what happens to the shadow of the stake? Why? When does the sun rise at the opening of the school session? When does it set? When does the sun rise and set at Christmas? When at the close of the school term? Is there any connection between this and the temperature?

Have the pupils take an ordinary calendar and keep a record of the fair, the cloudy, and the rainy days. Let them indicate by yellow disks the fair days, by red the cloudy days, and by black the rainy days. Let them set up a wind vane and note the direction in which the wind is blowing. From what direction does the wind blow before a rain? From what direction does it blow most often? Let them observe the different kinds of clouds and note the direction in which they are moving. Is there any kind of cloud which usually means rain? Any which is usually seen in dry weather? As a preparation to the study of winds, have the pupils note the movements of the air currents about the stove in the school room. This may be made evident by knocking two erasers together in the neighborhood of the stove and noting the direction in which the chalk particles move.

When water is sprinkled on the floor in the school room what becomes of it? What becomes of the rain which falls in the light summer shower? Develop the fact that the air contains moisture. When a pitcher of ice water is placed in a warm room, where does the water come from which collects on the outer surface of the pitcher? When warm air containing moisture comes in touch with any cold object, what happens? If a warm wind should blow over the Gulf of Mexico and in South Carolina should meet a colder current from the North or East, what would happen? When the rain falls on the earth one part of it runs off immediately into the streams, another part goes back into the air by evaporation, what does the rest do? What finally becomes of this part? The teacher should bring out the idea that part of the water which sinks into the ground runs out again as springs, and that part of it is taken up into the roots of plants.

Plant Study—

On account of the abundance of material, the esthetic value, and the economic importance of the subject, plant study will form a large part of the nature study course.

Since most schools will open in Autumn, seeds and fruits will naturally receive the first attention. Have the pupils collect and

bring to school as many specimens as they can find of seeds which grow in the community. These should be classified into useful seed and harmful seed. Specimens may be mounted on sheets of paper with a bit of glue, or may be more carefully arranged in small bottles for the "museum." A little contest to see who can bring to school the most varieties of correctly labeled seeds, will produce quick results. The pupils will easily learn to recognize all the seeds in the collection.

The primary pupils should be taught to look upon the seed as a little sleeping plant surrounded by a supply of food which it can use on awakening until it gets its roots and leaves and can make its own living. The children should soak some of the larger seeds in water, remove the outer covering and find the little plant.

Of course it would not do for all the little plants to settle down in the same spot. There would not be food enough to go round, and they would shade each other to death. They must be scattered so that they will have plenty of space in which to grow. How do they manage to get scattered? Do not tell the children, but let them discover all the ways they can. How are milk-weed, thistle, dandelion, elm, maple, and pine seed scattered? How are peach seed and apple seed distributed? How does the burdock, or the cockle burr get its seeds carried? Show that the seeds which are useful to man rely on him to scatter them, and do not develop any other expedient. The cotton and the okra plants are first cousins. What different devices have they used to induce man to scatter their seed? The peach and the almond are also cousins. How do they persuade man to look after them? If the peach tree could give its reasons for covering its seed with the luscious fruit, what might it say? State a reason which the cotton plant might give for covering its seed with fibre? Seeds which are harmful to man or which grow wild have to devise all kinds of ways to get about. Find all the ways you can.

Do all plants have seed? Do all trees? Does the elm tree? Watch the elm about February 1st. Have the children bring to school or make a list of plants which do not have seed. Do not hasten the work. Awaken their interest and the whole community will soon be at work on the problem. Let them discover that by seeds is only one of the ways in which plants propagate themselves, or form new plants of the same kind. How do we get new geranium plants? New chrysanthemum plants? New

oleander trees? How are begonias, sweet potatoes, and Irish potatoes propagated? How does the farmer in the coast country of South Carolina get his new crop of sugar cane? How does the onion reproduce itself? The lily? The gladiolus? The nut grass? The bermuda grass? Did you ever see a sweet potato blossom? A sweet potato seed? Find plants which reproduce themselves in more than one way. Make a list of such plants and, whenever possible, add the plant to the school collection.

Many flowers will still be blooming in the Autumn when school opens. Encourage the pupils to bring flowers to school and teach them how to arrange them in the best way in vases for purposes of decoration. Let them make a list of flowers which are still in bloom in the Autumn.

Autumn is the principal harvest time of the year. Make a list of the crops and vegetables which are raised and harvested in your school community. At what time of the year is each gathered? Tell how each is harvested. Which are useful as food for man? Which as food for animals? Which furnish clothing? What parts of these plants do we use for food? Of the food plants in South Carolina, of which do we eat the seed? Of which the leaves? Of which the stem or stalk? Of which the roots? Of which the fruit or pulpy seed covering? How is each of these prepared for food?

The last question forms an excellent illustration of the different levels of treatment applicable to the various grades of the school. The primary pupils may say of potatoes, "They are baked in a stove," or "They are peeled, sliced, and fried." The class of larger girls interested in cooking may study the composition of potatoes and the effect of cooking on the starch. The question suggests a course in elementary cooking in the advanced grades. If wheat is the crop under consideration, it will be sufficient for the younger children to understand the process of threshing it from the straw and the fact that the grain is then ground into flour and made into bread. With the older pupils the process of grinding may be thoroughly described, and with the most advanced class the principles of bread making and their practical application may close the subject.

It must be thoroughly understood that each of the subjects must be worked out largely by the pupils. Mere talks and answers by the teacher are of little value. Frequently very little of the work will be done at the school. It is the object of the teacher

to wake up the mind of the pupil and the interest of the community. When this has been done, she will have accomplished the chief aim of nature study.

Which of the plants named clothes the world? Observe and describe the whole process of picking, weighing, ginning, baling and marketing cotton. What did people do before the cotton gin was invented? In Brooks' "The Story of Cotton," read the account of the invention of the cotton gin and the description of the first machine constructed. If possible visit a cotton mill and follow the cotton from the bale to the finished cloth. Get from a farmer a sample of unginned cotton and from the mill a specimen illustrating every step in the process of manufacture. Mount these on cards for the "museum."

Note how the plants prepare for winter. Enjoy the bright hues of the forest. Gather leaves for drawing models and for decorating the school room. Make a collection of the leaves from the trees in your community. Mount and label each for your "museum" collection. Notice the leaf scar when the leaves fall. Note the covering which nature puts on the buds to protect them from the cold. Examine twigs of the peach and apple and see if you can discover the fruit buds for next year's crop. What trees in your neighborhood do not shed their leaves in the fall? Find out the names of the trees in the neighborhood of the school. If you have difficulty in ascertaining the name and will send a specimen showing leaf, stem, flower, fruit and other characteristics to the Bureau of Plant Industry, Washington, D. C., or to the Charleston Museum, Charleston, S. C., you will receive assistance in identification.

Which trees in your district make the best lumber? Do you know the long leaf pine? The short leaf pine? The rosemary pine? Describe the method of cutting logs and transporting to the saw mill. Visit a saw mill and describe in detail the process of cutting the logs into lumber. Visit and describe a planing mill.

In the fall and winter the care of house plants should receive attention. Window boxes and pots containing ferns, geraniums, begonias, or smilax will add to the beauty and attractiveness of the class room. The cultivation of a love for plants and the ability to care for them successfully should be a part of every liberal education. Teach how to make cuttings of these plants, how to drain the pots, and how to mix the proper soil and fer-

tilizer. Encourage the exchange of plant cuttings among the children of the district. On some day in early spring when the geraniums are in their prime, have an exhibit of pot plants loaned by the pupils, and award ribbons to those producing the best plants. Use "School Lessons on Plant Production," free Farmers' Bulletin No. 408, Department of Agriculture, Washington, D. C.

In the fall and winter make plans for the next year's "Corn Club" and "Tomato Club." Eucourage your pupils to attend the County Corn Fair if one is held. Get for each boy a copy of the Farmers' Bulletin No. 409, entitled "School Lessons on Corn," and let him learn how to select good corn for exhibition and seed. Let each boy bring to school the best ten ears of corn he can find as described in the bulletin. Have an exercise in corn judging. Let the boys make some trays at home or in the school workroom and test the germination of the ears selected for seed after the manner described in the bulletin. Encourage the members of the club to make a compost bed from manure of the winter stock feeding to be used on the prize acre of corn. The school may offer to test seed corn for the entire district and thus perform a wider agricultural service.

As the spring comes on note the changes which gradually take place in plant life, such as the bursting of the buds, the movement of the sap as indicated by the fact that the bark may be removed from the growing layer of the twig, the blooming of the peach, the plum, and various wild trees, shrubs, and vines. One of the earliest trees to herald the coming spring is the elm. Let the pupils watch it bloom about February first. Have them observe the growth of its seeds and their mode of distribution. Let them plant some elm seed. They will often sprout and grow before the leaves of the parent tree have yet appeared. The flowers of many plants are quite small and have none of the bright colors which we usually associate with flowers. Do not miss them on this account.

Have your pupils note the coming of the spring flowers. Keep a record showing when each was first found. Identify the flowers as they appear and mount specimens for the "museum."

The pupils should recognize the elements in a flower—the pistils, the stamen, the ovary, the calyx, the corrolla, the petals, etc., and should know the essential facts about pollination, cross fertilization, and the office of the wind and insects in pollination.

The parts should be distinguished first in a large flower like the cotton, the morning glory or the althea, and afterwards in a more complex flower. They will be interested in learning how Luther Burbank developed the plumcot by crossing the flowers of the plum and the apricot. When the corn blooms, one element of the flower is in the tassel, and the other in the silk. What is necessary to a full ear of corn? Would you ordinarily plant pop corn and field corn near each other? How might you do it without mixing? When one stalk of corn grows alone why does the ear have only scattered grains? What happens to the corn crop when a drouth kills the tassels even though it should rain immediately afterwards?

Why do flowers have color? Why odor? Why nectar? How is the pollen of odorless flowers scattered?

Lead pupils to observe the spring landscape and appreciate its beauty. Call their attention to the "candles of the pine" and the infinite shades of green in the forest. Have them pick the bits of scenery which in their opinion would make the best pictures for an artist to paint or the best protographs in colors.

Note the preparation of the soil for the spring crops—the breaking, the harrowing, the terracing, the bedding, the drainage, the distribution of fertilizer, and the planting of the crops. Let pupils keep note of all the steps in the preparation and cultivation of the prize acre of corn or cotton, or other field at home, and at the end of the year describe minutely the method of cultivation. Let them make a list of all the tools used on the farm and describe the use of each.

In the cultivation of the prize acre of cotton or other field, encourage the larger boys to keep an itemized account of the labor, seed, fertilizer, and other expenses of cultivation. Let them compare the total expense with the proceeds of the crop and determine the profit. The development of this habit among our farmers is absolutely necessary before farming becomes a *business.*

Encourage the farmers of your school district to take their boys into partnership with them in farming. A boy who is given an acre or two of good land and is allowed to cultivate it under the best direction he can obtain and to have the proceeds of his labor for his own, will naturally develop an interest in agriculture. If the boy starts early enough, he may in this way earn enough money to pay his way through college.

With the coming of the warm spring weather begin the studies in the germination and growth of plants described in exercises 9-15 in "School Exercises in Plant Production." Corn, beans, and radish seed planted between moist blotters will show the development of the parts of the plant and will enable pupils to see the root hairs.

Conduct experiments to show that the plant needs soil, sunshine, heat, and moisture for its development. Note the efforts of the young plant in a dark room to get its leaves into the sunshine.

Let the pupils examine the grain of corn after the plant has attained some size and tell what has happened to it. Draw inferences. Have them note the difference between the germination and growth of the bean and the pea.

What is a weed? What are the most troublesome weeds in your community? Learn to recognize these by leaves, flowers, and seed. How may we exterminate each kind most easily?

Not all plants are large and showy. Some are so small and insignificant as to escape notice entirely. Collect the gray lichen from the stones and the moss from the bark of trees and examine carefully. Examine with a simple microscope the scum from a neighborhood pond. What do you find? Make a simple study of bacteria and their relation to disease.

The Spanish moss, the water lily, and the mistletoe should be studied as examples of plants presenting marked peculiarities. What plants grow only in water? Only in a swamp? Only in a very dry place? Examine mushrooms, toad stools, and other fungus growths. Get from the Department of Agriculture the Farmers' Bulletin entitled "Edible Mushrooms."

The School Garden.—

The school garden is a very desirable adjunct to the teaching of nature study and elementary agriculture. One does not really know a practical fact until he has given it practical application. Children will develop an intense interest in a school garden. At the Memminger Normal School in Charleston, S. C., we finally secured a piece of ground fifty feet square for school gardening. This was cleared of brick-bats and rubbish, given a deep plowing, and fertilized with several loads of stable manure and street sweepings. It was then laid off into beds 3x6 feet and these were assigned to more than one hundred girls from twelve to fourteen years of age. It was planted in flowers and

vegetables with seed which was obtained free of cost from the United States Department of Agriculture. (Any teacher may secure free vegetable and flower seed sufficient for her whole school from the United States Dept. of Agriculture.) An intense interest was developed at once. Girls came early in the morning to work and water their gardens; at recess the plot was filled with busy girls, and some even remained at the close of school to plant and cultivate. Every county school house in South Carolina should have a plot set aside for a flower and vegetable garden.

There are some obstacles to success in the school garden which the teacher should face frankly before beginning. It may be that she herself knows little of gardening. This is a defect which can be easily remedied—she can learn. The school is frequently open for the fall and winter and closes before the spring garden has a chance to come to its full development. In this very obstacle the rural teacher has an opportunity to perform a real service. In most parts of South Carolina it is possible to have an excellent fall and winter garden. Many people have not discovered the fact. Radish, lettuce, onions, turnips, celery, and strawberries may be planted and set out at the opening of the school in the fall and will be ready for use before the close of the school session. Sweet peas should be sown in the fall for spring blossoming. The teacher should get from Clemson College the bulletin on "Winter Gardening." She will then be in a position to make an actual contribution to the practical agriculture of her school district.

In the school garden it is best to let each child have his individual plot and specialize on one or two kinds of vegetables or flowers. The children should be taught how to work the ground *deep* and fertilize thoroughly before planting, and to keep the plot in thorough cultivation. A weedy and neglected school garden is no ornament. The school should own the necessary garden tools as a part of its regular equipment. State Supervisor of Rural Schools C. J. Browne, of Louisiana, is working a plan by which the school is provided with a cold frame and furnishes the district with early cabbage, tomato and pepper plants.

The Home Garden.—

After all, the garden at the school merely serves as an illustration. The best gardening should be done by the child at home following the suggestions, and under the inspiration of the

school. "The Boys' Corn Club" in the Southern States has given us a model. Interest the parents and children in the enterprise, announce an annual exhibit of garden products produced by pupils, offer a few prizes for the best specimens of flowers and vegetables, and you will insure the success of the school-home garden.

Best of all, this garden awakens interest and gives instruction not only to the pupils, but to all the parents in the district. Teachers who are interested in the school garden should communicate with the United States Department of Agriculture and secure publications of the department relating to this subject.

Insects.—

Insects offer a rich field for study and observation. The pupils should first be given a clear idea of the general characteristics of insects. How many legs has a fly? A bee? A grasshopper? How many wings? How many legs has a spider? A rose mite? A tick? Show the difference between insects and spiders. Call attention to the fact that the bodies of insects are divided into three parts and that they have six legs, while the bodies of spiders are divided into two parts and they have eight legs.

Study the life history of typical insects. The children have perhaps seen small grasshoppers and large grasshoppers of the same kind. The small grasshoppers grow larger by shedding the hard covering and growing while the new covering is still soft. Do all insects grow in this manner? Does a small butterfly grow into a large butterfly?

McMurry, in his "Special Method in Science," makes a study of the cabbage butterfly. The teacher may use this as a model for studying the life history of all butterflies and moths.

Perhaps there are some cannas in your school yard or in the yard at home. Sometimes you may find the leaves of the canna twisted together and fastened by a silk web. If you will examine closely you will find enclosed in the leaf and eating it, a slender larva which we sometimes call a "worm." This is not a worm, but a young butterfly in the eating and growing stage. Let the pupils watch this larva eat and grow larger. One day it stops eating and fastens itself to the leaf with a silk thread, begins to grow shorter and to cover itself with a hard covering. It has reached the pupa or cocoon stage. Let the pupils take the leaf with the attached cocoon and place it under a wire gauze or in a

lamp chimney with a piece of mosquito netting over each end. If they are lucky they may see the butterfly come out of the pupa case. It may come out when they are not looking and be found fluttering about in the lamp chimney when they come to school in the morning. This is the adult form of the butterfly. The adult form will again lay eggs on the canna leaves and these will hatch into little larvæ and complete the life history of the insect. The cotton boll worm is another larva whose life history should be traced by the pupils in this way.

The silk "worm" offers a good illustration of the life history of insects, and is interesting also because of its economic importance. When the teacher is planting trees in the school yard, if she will plant one or two white mulberry trees, this study can be made. The trees and the eggs may perhaps be obtained from the Charleston museum or the United States Department of Agriculture. The pupils can feed the little silk worms with the fresh leaves of the mulberry tree and watch them develop to their full size, spin the silk cocoon, and finally emerge as full grown silk moths.

The school should study especially the life history of the mosquito and the fly, because of the very dangerous part these insects play in the communication of yellow fever, malaria, and typhoid fever. The method of exterminating them should receive special attention. Study the insect enemies of the school garden.

Study the life history of the honey bee and the important work of this useful insect in the production of honey and in the pollination of flowers. A mounted collection of insects found in the neighborhood will make a fine addition to your school "museum."

The possibilities of insect study are unlimited. Not all your pupils will become equally interested in the subject, but through your work some boy in your class may become an entomologist who may discover a successful method of fighting the boll weevil. All will gain a deeper insight into the marvelous adjustments of nature.

Birds.—

Bird study is one of the most interesting forms of nature study. At the beginning of the school session make a list of all the birds which your pupils know by sight. Make a list of the birds which the teacher and pupils see and identify during the progress of the school year. It will be discovered that certain birds live in the community throughout the year, others are seen only during

the summer, and still others only when they are passing through going North or South. To assist in the identification of birds, the teacher should have on her desk *Bird Guide—Land Birds East of the Rocky Mountains*, Chas. K. Reed, Worcester, Mass., or *Birds of Eastern North America*, Chapman. Mr. James Henry Rice, State Game Warden, Summerville, S. C., is an authority on South Carolina birds, and will no doubt take great pleasure in giving information to teachers who are interested in the subject.

Let your pupils study the feeding habits of birds. Which eat seed? Which eat insects? Which catch insects in the air? Which feed on tree borers? What else do birds eat? Is the coming and going of birds in any way connected with the food supply? Study certain typical birds. One of the most interesting birds in South Carolina is the quail, or bob-white. On what does the quail live in the winter? Show his great importance to the farmer in devouring weed seeds and insects. Study his nest building. As soon as the little bob-white is hatched he is able to run about and help find his own food. What other birds are like him in this respect? How does the mother quail protect her young before they can fly?

Look carefully into the nest of a bluebird and thrush, or some other song bird, without disturbing it. Describe the little birds as you find them. How do they differ from the young quail? How does the mother bird feed them? Sit quietly where you can see the nest and count the times the parent birds visit the nest to bring worms in the course of an hour. How do these birds help the farmer? Impress the great economic importance of birds and develop in the child a desire to protect them. In the winter, if grits or other food is scattered in a certain place for a few days, the birds may be induced to visit the spot regularly and they will become quite tame. By working gently and patiently, ordinary wild birds have been persuaded to eat from the hands of a little boy or girl. The school can easily attract a pair of bluebirds by building a house for them after the following plan furnished by Mr. W. H. Wylie, Superintendent of Buildings and Grounds, Winthrop College:

"The best nest for a bluebird is a section of a hollow tree, but this is hard to get. If this cannot be obtained, use weather-worn boards, because the bluebird will not go into a box made of new boards. Make the house six or eight inches square and eighteen inches deep. The door should be twelve inches from the bottom

of the box, and near the top other small holes should be bored for ventilation. The box should be placed on the top of a pole about six feet from the ground. The sparrows will usually take a box placed higher than six or eight feet. A stick should be nailed to the side of the box extending four feet above it for a perch for the birds."

Pupils should be made to feel strongly the cruelty of robbing birds' nests and of killing birds, especially during the nesting season. Tell them the story of the egret and how the plume hunters sought out the nesting places of these birds on the eastern coast of the United States, killing the adult birds and leaving the young nestlings to starve. Tell them about the Audubon Society and its efforts to preserve the bird life of our country.

Animals.—

The pupils should make a list of the wild and the domesticated animals found in the school district. They should study their habits and should especially be taught kindness to domesticated animals. Every child should either read or hear read the story of "Black Beauty."

Local Industries.—

A knowledge of local industries furnishes a basis for the understanding of the manufacturing and other industries which enter so largely into the geography work of the pupil. We have already referred to some of these industries, such as the cotton gin, the cotton mill, the saw mill. The pupils should be encouraged to visit the factories in the school district. The teacher may arrange with the superintendent for a visit by the whole class under her escort. There is nothing more common in modern times than the newspaper, yet very few people have any conception of the process of setting type, or of stereotyping, and printing as conducted in a modern newspaper plant. Arrange a visit to the newspaper office. The rice mill, the iron foundry, the turpentine still, the power plant, the brick kiln, the fertilizer factory, and other local industries should be studied. The pupil should know the resources of his own community and the school should be a potent factor in opening his eyes to the possibilities of development which exist in every county in South Carolina. Every boy and girl should be inspired to make some contribution to the community welfare.

Caution.—

No teacher will attempt to teach everything contained in the preceding suggestions in any one year, or even in the entire school course. If she should touch vitally on the essential points during the seven or eight years of the elementary school, her work would deserve hearty commendation.

AGRICULTURE.

The School Law of South Carolina includes the subject of agriculture among the studies which shall be taught in the elementary schools of the State. Elementary agriculture is nature study in practical operation. The teacher who has studied carefully and has taught faithfully the suggested course in nature study, will already have made an excellent introduction to the subject of agriculture. Duggar's "Agriculture for Southern Schools," which has been adopted by the State Board of Education as text-book for the elementary schools, should be placed in the hands of the pupils in the seventh grade, and it should systematize and amplify the knowledge which they have already been accumulating through nature study. The book gives an admirable discussion of the elementary facts of the agriculture of our section, and perhaps no further suggestions are needed to insure its proper presentation by the teacher.

She should remember that the test of agriculture is not in knowledge, but in practice. In order to vitalize the book, the pupil should bring to the study an interest which he has acquired through some practical experiment in which he is engaged. A boy who is raising an acre of cotton, who is experimenting with a new kind of peanut, or new variety of watermelon, who is raising pigs or chickens, will naturally acquire an interest and enthusiasm which would otherwise be impossible.

If, in the progress of her work with the text book, the teacher should discover that her pupils have developed a particular interest in any topic, she should not hesitate to follow this line of interest and to supplement the book extensively by means of Government and Clemson Bulletins, even though this should make necessary the omission of other chapters. An intense and practical interest in a few things will be more effective than a dissipation of energy over a larger field. The teacher should utilize the school garden, The Corn Club, The Canning and Poultry Club, The County Fair, and The Corn Fair to develop

interest in agriculture among the older boys and girls. The school agriculture should not be something set off by itself, but should be a vital part of the whole agricultural movement in progress in the county where the school is situated.

Brooks' "The Story of Cotton" has been adopted by the State Board of Education for supplementary reading in agriculture. Cotton is and will remain the staple crop of the South. Its condition and prospects are matters of vital concern to the whole world. It is exceedingly important that the people of the South should know intimately the facts relating to its cultivation, its marketing, and its manufacture. They should know the story of the development of the cotton industry and should appreciate its great economic importance to the South.

GEOGRAPHY.

Objects of Geography Teaching.

1. Geography has a definite practical value. To know the location of places, the lines of communication between them, the products and industries of different sections and their commercial relations, has a very concrete business value and should be a part of the mental equipment of every well informed man and woman.

2. Geography appeals to the child's powers of observation and reasoning. It is usually his introduction to science and sets the stage for history. Through this study we get a vivid conception of the relation between cause and effect. The necessity for imaging scenes and countries unlike our own, develops the imagination as few other subjects can do.

3. The study broadens our human sympathies and brings vividly before us the interdependence of all mankind. The farmer on the wheat fields of the Dakotas is feeding the world and the humblest farmer in the South Carolina cotton field may glory in the fact that he has a part in clothing the nations to the "uttermost parts of the earth." The fruit of the tropics and the teas of the Orient supply our breakfast tables. The study of geography brings to us a clearer realization of the brotherhood of man and tends to hasten the time when the nations "shall beat their swords into plowshares" and there shall be no more strife nor bloodshed.

Nature Study and Geography.

The fundamental ideas of geography center in man and are connected with the soil, the forms of land and water, distance and direction, plant and animal life and natural resources and their resulting industries. The language of geography has a meaning only when it is given a content by observation at first hand. Nature study along the lines indicated in the preceding suggestions is thus necessary to a satisfactory understanding of geography. This study should both precede and accompany the work in the text-book. For a great majority of pupils geography and work correlated with it will furnish the only insight into the science group of studies. This fact should challenge our best efforts to make the course as rich as possible.

Geography and History.

Geography and history are so intimately related that it is almost impossible to present one without the other. The historical reasons for facts in geography and the geographical reasons for facts in history should receive continual emphasis. During the history lesson the map should be in constant use by the teacher and pupils. A zizzag journey around the world in current history makes an excellent review in location of places.

Methods in Geography.

The experience of the child will usually be confined to a very limited area of the world. The problem of the geography teacher is to provoke an intimate acquaintance with the limited environment in which he lives and through the expansion of the resulting ideas to give him a conception of the whole world and its activities. In this work the teacher will use all the resources she can command.

1. She should make a collection of pictures illustrating geographical ideas. The text-book itself will be rich in such illustrations and the teacher can add to this material indefinitely by post card collections or by pictures cut from magazines and other periodicals and pasted on card board. In order to classify these pictures for ready use, the teacher should provide herself with twenty-five or more manila envelopes from ten to twelve inches square. In these envelopes she should collect and classify

her pictures for use when they are needed. Comparatively few children have seen the ocean. One envelope should be devoted to pictures showing phases of the ocean. Another might be filled with pictures illustrating rivers, lakes, and other forms of water. *Mountain Scenery*, *Means of Transportation*, *National Costumes*, *Agriculture in Many Lands*, *Schools in other Lands*, *Lumbering*, *Cotton from the Field to the Counter*, *State Capitols*, and dozens of other headings would suggest interesting collections of pictures. The collections may be made a part of the "museum" to which we have made such frequent reference.

2. The library should be provided with geographical readers and authentic books of travel and these should be used freely in the course of the recitations and for reading at home. Carpenter's "Geographical Readers," Chamberlain's "How We Are Clothed," "How We Are Fed," "How We Are Sheltered," the "Seven Little Sisters," the "Our Little Cousin" series, and hundreds of other books, many of them on the State Library list, will give to the pupils a conception of the life of people in other parts of the world. The younger children will naturally be interested in the children of other lands. Arrange an exchange of letters between your pupils and school children in other States and other English-speaking countries.

3. Pupils should be taught how to read and use the maps. To acquire a conception of a map, the pupil should be taught to draw a plan of the school room on a scale of one inch to a foot, then one inch to a yard, and to locate the objects in the room. Then the farm on which the pupil lives may be mapped and the various points on it indicated. The next step is drill on direction and distance and in the use of the scale. This may be given as indicated on pages I and II of the South Carolina Supplement to Maury's Elements of Geography.

Since the maps in the Geography are drawn on different scales the pupil has a tendency to become confused in his ideas of relative size. The teacher should check against this confusion by comparison on a large map, and by constant reference to the scale on which the map is drawn. The school should be provided with a complete set of good maps. Preferably they should be mounted singly in the light, dust proof steel case.

The pupils should have much drill in map drawing. Sketching is better than the labored copying and coloring which we see so frequently. The pupil should be taught to look at the

map, secure a mental picture, sketch the outline and look at the map again to check the result. Early in the training he should be taught to use meridians and parallels as guides in map drawing. To fix the location of mountain ranges and to teach relief in general, he should make a relief map on the ground in the school yard, or on the sand table. Old newspapers may be soaked in water and reduced to a pulp and from this material relief maps may be made on pieces of thin wooden board or cardboard. They may be colored and made quite elaborate in detail. The pupils are naturally interested in the manual activity necessary to the making of such maps. It is possible with the crayon to indicate on the blackboard the relief of the section which is being studied.

4. The school should possess a good twelve-inch globe. It is only by means of the globe that we get a true idea of the relative size and position of the continents and oceans. The globe, or some substitute for it, is necessary to clear explanation of the phenomena of day and night and the change of seasons.

5. The teacher will continually make her work concrete and give meaning to the words of the texts by appealing to the pupil's own experience and observation. The class should occasionally make a special geographical excursion in which observations are confined to land and water forms or to some special topic which is under consideration. After a rain the pupils may easily find near the school-room miniature illustrations of *divides*, *water falls*, *rapids*, *rain erosion*, *stream erosion*, *deltas*, *stratification*, *islands*, *isthmuses*, *peninsulas*, etc., etc.

6. The teacher should master the art of presenting geography by type studies. McMurry gives a capital illustration of this method of teaching in the study of Minneapolis in his *Method of the Recitation.* In chapter X of his "Special Method in Geography" the teacher will find many other suggestions for type study.

In Maury's Elements, *South Carolina Home Geography* is presented as an elementary type study of the section in which we are most interested. After the teacher has spent several weeks on these pages and has worked out our own State in the detail suggested by the treatment, it will be easy for the pupil to form a mental picture of any other Southern State. He may say, "Georgia is like South Carolina except that etc., etc." All that is necessary is to name the points of variation from the

type studied. The South Carolina teacher should make an intimate study of Charleston as a type of the Southern seaport city. The reason for its location, its relation to the early industries of South Carolina, the occupation of its people, its foreign and coast-wise shipping, and its prospects for growth should be studied not only for their own sake but also as elements of a type which may be used in the further study of cities. This study should be given the time necessary to secure a vivid mental picture. When we reach Wilmington, Savannah, Mobile, New Orleans and Galveston it will only be necessary to indicate the points in which these cities differ from Charleston.

If a Sumter county boy has made a complete study of the town of Sumter as a trade and manufacturing center, it will be sufficient for a fair knowledge of Rock Hill for him to say, "Rock Hill is like Sumter except that it has Winthrop College and a buggy factory instead of a telephone factory." "Florence is like Sumter except that it has tobacco warehouses and railroad shops instead of a telephone factory."

7. Geographical causes and effects should receive special attention. Charleston does not "just happen" to be in its present position. "Why is Charleston?" is just as important a question as "Where is Charleston?" Charleston was once a more important city than New York. Why has New York outgrown Charleston? What should be the effect of the Panama Canal on Charleston? Why is Orangeburg located where it is? Why is Spartanburg growing so rapidly? What causes have made Chicago great? What natural advantages have made Denver? What geographical facts have determined the location of the transcontinental railways? Why is there an American Desert? Why does California have a wet season and a dry season? Why is the Tigro-Euphrates Valley now a desert when in Bible times it was the most densely populated region on earth? Such questions as these should be the normal state of mind with the student of geography.

8. The great industries of men should also receive special attention. The study of local industries should be a preparation for this wider view. The teacher should not be content that the pupils should know merely that Pennsylvania is a coal producing State. The methods of mining and marketing coal are more interesting and more significant. Make a special study of the agriculture of the food staples, the building industries, the flour

mill, the rice mill, the meat packing industry, the canning factory, cotton and woolen mills, the tannery and shoe factory, the paper mill, and the great business of transportation. This work will involve extensive supplementing of the text-book from the school library and the current magazines and newspapers.

9. While doing this more vital and more interesting work, the teacher should not forget that pupils need to know the location of places on the earth. She will endeavor to fix in the mind of pupils a clear image of the earth's surface with its physical features and political divisions. In this map study, only the significant places should be located, but these should be learned definitely. When a continent or a smaller division has been studied a map should be drawn in outline and the pupils required to locate the important places. The State of South Carolina and the United States should receive special attention this way. A pupil in the sixth grade should be able easily to locate the counties and rivers of our State on the outline map, and should fix the position of the principal cities. He should possess such a clear mental image of the United States that he can easily answer questions like the following: Name in order the States which touch the Atlantic Ocean. Which touch the Gulf of Mexico? Which touch Canada? Which the Pacific Ocean? The Mississippi River? Which the Great Lakes? Through which do the Rocky Mountains run? The rivers, mountains, and other physical and political features should form a part of the map drill.

Imaginary journeys are excellent devices to fix locations. The teacher should prepare a series of questions such as the following: How would you go from Columbia to Manila? Name the important places through which you would pass on the journey.

There should be constant comparison and correlation as we study the various countries. In the comparison of North America and South America, such a question as, Which is best adapted to the development of great civilization?, will bring out the significant differences in the two grand divisions.

HYGIENE AND SANITATION.

While this subject will occupy only a short space in the Manual, it is the most vitally important of the whole list. Without health there can be little happiness or efficiency. The whole school course and every school activity should inspire the pupils to

desire and strive for health, strength, and cleanliness of body and soul.

Hygiene, like Civics, is more largely a matter of habit than of knowledge. Habit is much more easily developed by example than by precept. The teacher's attitude towards health and cleanliness, and her own example as evident in the school room and its surroundings, will speak with greater weight and authority than any word she may utter on the subject. The following suggestions from the "Wisconsin Manual of the Elementary Course of Study" are so pertinent that we quote them in full:

"Before planning the class work in hygiene the teacher (and also the board and patrons) should consider carefully the following suggestions:

"1. Cleanliness of the room. Are the walls and the ceilings clean or is the dust filling the cracks and crevices? Is the floor clean? Have the windows been washed? Ordinarily the school room floor should be washed at least once a month.

"NOTE: In sweeping, the dust can be kept down to a great extent by using a 'sweeping compound.' The dust particles are tiny 'air ships' in which microbes of all kinds ride.

"2. Are the school grounds well drained, or does the water stand around the school house in wet weather? Is it muddy around the school house when it rains? A few loads of gravel may add much to the appearance of the grounds, and to their sanitary condition. Many schools have good walks from the road to the school house door.

"3. Are the outbuildings in good condition? Are they clean? Are they free from marks? They should be scrubbed at the same time the school house is scrubbed. These buildings have much to do with the health of the children. Waste materials and poisonous substances kept within the body often give rise to disease. Filthy and poorly constructed outbuildings promote in the children habits which often lead to serious abdominal troubles. Are the doors in good condition? A little child may refrain from going to the outbuilding if the door is off its hinges or unscreened.

"4. Is fresh air coming into the room during school hours, or are the children breathing over and over again the same air? If the parents, board, and teacher are really providing for fresh air to enter, and for foul air to escape, they are teaching a lesson in hygiene that it infinitely more valuable than pages of a text-book memorized and recited word for word.

"5. Is the room evenly heated? Is the stove able to do its work? Do you know how to get the most out of it? Can you make the fire and do you understand how to regulate the dampers and slides? Is the fuel in good condition, and is kindling provided? Is the floor cold? Is there a draft near the window? The temperature of the school room should ordinarily be from 68 to 70 degrees. A good thermometer will indicate the temperature where the pupils sit. Fresh air is one of the conditions for good work in school, it should be provided and should be well distributed.

"NOTE: In order to have the school house heated to a uniform temperature it is often necessary to repair the building itself.

"6. Is there light enough in the room? The sun does not shine through the north windows during school hours; therefore, do not cover up the best portion of these windows with a shade. Get as much light as possible into the room, but do not let any of the children sit in the direct sunlight. Pupils should not sit facing a window. Are there any pupils with weak eyes? Straining the eyes when they are in such a condition may result in permanent injury.

"7. Note the position of children sitting or standing in school. If improper postures are habitual, a few drills may be of value in straightening them up. If Bancroft's 'School Gymnastics' is in the library, suggestions may be gotten from that. Sometimes we find the pupils studying and reciting the physiology lesson in such a posture as to violate the very laws of health they are learning about.

"8. Are the desks of the proper sizes? Are they arranged properly so that the children are comfortable? Do the children's feet rest on the floor, or are they dangling in mid air? Do they have to bend over when they are writing? The desk should usually overlap the seat back of it from two to three inches. Remember these desks should be for the convenience and comfort of the children, rather than for adults. Is there any child whose seat is too high for the desk in front of him? It is of little use to teach the children the nature and composition of the bony framework of the body and at the same time permit conditions to exist that allow this framework to become deformed. When new desks are needed, urge the board to purchase single desks.

"9. How about the water supply? Is the water good? Is the ordinary open water-pail in use? The common drinking cup has

been outlawed in Wisconsin and now every child should have his own cup. Let us suppose there is a child in school who has consumption in its first stages. How about the child who uses the cup next? At present there are 2,500 deaths from tuberculosis in this State every year. There are surely some cases in our schools.

"10. Is the teacher and are the children neat in personal appearance? Is the school provided with a wash basin, soap, and towels? Since the school is a part of the home, the equipment is not complete unless these articles are present.

"11. Are the pupils taking proper exercise? Are there any pupils who stay in the school room during recesses? Their growing bodies need outdoor activities. Exercise tones them up.

"12. Do any children sit with their mouths open? Do the children breath through their mouths? Perhaps there are some physical defects present, such as adenoid growths, enlarged tonsils, or the like. Are any of the pupils nearsighted? Any who cannot see the work on the board? If Barry's 'Hygiene of the School Room' is in the library, test the pupils' eyes by means of the charts given in Chapter 7. Are the blackboards of a glossy appearance so that it is difficult to see the writing? It is ridiculous to give instructions regarding the anatomy of the eye when such conditions are found. Are there any children whose hearing is defective?

"13. Are the children provided with good shoes, or do they sit in the school room with wet feet? Rubbers should not be worn in the school room.

"14. Are the children getting plenty of sound, refreshing sleep? Is it a custom for the children to attend social functions frequently, stay up late at night, and eat late luncheons? Such practices mean poor work in school as well as a nervous strain that is detrimental to health.

"Are their sleeping rooms supplied with fresh air?"

It is only when the school house and its surroundings have been made clean and sanitary, or when we are striving earnestly towards that goal that we can teach cleanliness effectively to the children. If the teacher neglects her own health, keeps late hours, eats improper food, and comes to school cross, or neglects the temperature, the lighting, the ventilation, and the sanitation of the school and its surroundings, her "lessons in hygiene" will have little weight.

Methods of Instruction in Hygiene and Sanitation.

Ritchie's "Primer of Hygiene" has been assigned a regular place in the program of studies for the fourth grade. Pupils of this grade are old enough to read and study the book itself. The book, however, should serve merely to review, organize, and amplify the oral lessons in hygiene which should have formed a part of the child's instruction from the first grade. The same should be said of the "Primer of Sanitation" which has been assigned a place in the sixth grade. These books constitute an admirable presentation of the essential facts of hygiene and sanitation. The teacher should be thoroughly familiar with their contents, and should use them constantly as a guide in her oral work.

In the lower grades *cleanliness*, *health*, and *strength* should be the keynotes of the instruction in hygiene. Clean nails, clean hands, clean teeth, clean bodies, clean clothes, clean food, clean water, clean surroundings, and clean thoughts are good watchwords for children. From the very beginning the teacher should let the children realize that a thing may look perfectly clean and yet be dangerously dirty. As an illustration, teach how tuberculosis and typhoid fever are disseminated. Children should be taught to avoid such habits as spitting promiscuously, putting their fingers, pencils, or other objects in their mouths, and should be taught to use individual drinking cups. The only way to insure the use of the tooth-brush is to impress the lesson so thoroughly that the child will feel uncomfortable every day until it has been used. This is true of all hygienic and sanitary measures. In natural connection with the lessons on cleanliness the teacher should call attention to the tobacco and cigarette habit as opposed to cleanliness.

Every child wishes to be strong and well. This desire may be made a motive for good habits in eating, for right kinds of exercise, for correct posture, for sufficient sleep and rest, for study to strengthen the brain, and for abstinence from anything which would work against perfect health and strength. Call attention to the fact that the best colleges will not allow the athletic teams to smoke cigarettes. All forms of alcohol injure health and strength, and prevent that *best* bodily and mental development which should be the ambition of every boy. The course should include a discussion of the means of preventing such diseases as consumption, typhoid fever, malaria, smallpox, and hookworm dis-

ease, and should lay strong and deep foundation for home and public sanitation.

The teacher should have on her desk the monthly bulletins of The State Board of Health. They may be obtained by dropping a postcard to the State Department of Health, Columbia, S. C. All teachers are urged to read and heed the earnest appeal of Dr. Ward which follows.

As an incentive to development of health, strength, and muscular activity, the teacher should encourage in every way wholesome games and sports on the school ground. A desire on the part of the boys to develop a winning team in the County Field Day exercises will prove an effective argument against cigarettes, laziness, and other harmful habits. Teachers should secure from Clemson College a bulletin entitled "Track and Field Sports for High and Elementary Schools."

SCHOOL SANITATION.

Dr. J. LaBruce Ward, State Director of Rural Sanitation.

The term sanitation, in its broad sense, comprises all measures used to prevent disease. It includes therefore the isolation of persons who have contagious or infectious diseases, and the employment of measures to prevent diseases which, strictly speaking, are not "contagious." For instance, we can prevent malaria by living in screened houses and by sleeping under nets. The same thing may be accomplished by taking a small dose of quinine daily during the mosquito season. We can guard against typhoid fever by properly disinfecting the body discharges from the patient, by screening against flies, and by having pure drinking water.

Public education in sanitation and hygiene is the only way to prevent disease. Hookworm disease, because it lowers the vitality of its victims and makes them succumb to other diseases, is indirectly responsible for many deaths each year in our State. A cheap privy for each family in the State would in a few years cause hookworm disease to disappear. It would also lessen typhoid fever, diarrhœa and other intestinal diseases. Why, then, do the people not construct and use sanitary closets? Because no one has instructed them. And why has no one instructed them? Because we have been brought up to believe that to say "privy" is to be disgraced. It is high time for us to

let this false modesty and prudery give way before common sense. These things can, without violating any of the laws of decency or true modesty, be discussed in the school room and out of it. In what other way can the people be educated about disease prevention? Each of us is his brother's keeper. The failure to realize this is responsible for many new graves each year.

Holding as she does, the esteem and confidence of the people of the community, the teacher working in the rural districts is in a position to do an invaluable service for mankind. If she does not preach the gospel of health, she is failing in that which is even more important than teaching reading, writing and arithmetic.

You may remember the tale of Paul and Virginia and its tragic end. Virginia after an exile of several years in Europe, where she had been in a convent, is returning to her beautiful Isle of France. Her ship is wrecked upon the rocky shore. Paul sees the wreck from the shore and attempts to reach Virginia but is restrained. The wreck drifts nearer. Virginia is approached by a huge sailor who has cast off his clothes in order the better to fight the sea. He holds out his arms to her, imploring her to jump and assuring her that he can save her if only she will trust herself to him. Does Virginia throw herself into the arms of the brave tar who is willing to risk his own life to save her? No, her convent bred soul is shocked. She has seen his bare body. She blushes and turns away. She drowns and the next day her body is washed up on the beach. Paul succumbs to grief and is buried by her side. In this matter of sanitation the public is playing the part of Virginia. Paul is the State Board of Health, imploring aid. The strong sailor, able to buffet the waves on the sea of ignorance, is education. Do not blush and turn away from the bare truths of a sanitary knowledge. Do your duty. Surely the knowledge that you have been instrumental in saving human life is a reward worth the striving for.

Whenever the teacher suspects scarlet fever, measles, or other contagious disease, the child should at once be excluded from the school and a physician sent for. There is no excuse for a case of smallpox in the school, as the State has prohibited any child who has not been vaccinated from attending school. If the child does attend, the principal of the school and each trustee is

liable to a fine. Vaccination is the only safeguard against smallpox.

While these contagious diseases require immediate attention, there are other conditions which are of more importance. Among these may be mentioned defective vision, evidenced by holding the head to one side; faulty hearing, often accompanied by ear discharge; disease of nose and throat, manifested by mouth breathing, muffled voice, or nasal tones.

The pupils often have skin disease. Some of these, as ringworm, are very contagious. Enlarged glands, "kernels" of the neck, unless caused by sores of the scalp or neck, may be tubercular. A limp may indicate hip joint disease. The attention of the parent should be called to any of these conditions and examination by a physician advised. Attention when the child is young may prevent permanent defects or disability.

Defective teeth are often the cause of disease. Of the 10,000 school children inspected in the rural schools in South Carolina, over thirty per cent. had teeth needing immediate dental attention.

About thirty per cent. of them showed evidence of hookworm disease. Should any of your pupils appear pale, sallow, or undersized, or should they be backward mentally, instruct the parents to write to the State Board of Health, Columbia, S. C., for mailing cases, and directions for sending specimens of excreta for examination.

Remember that while all of us are exposed to contagious diseases, we may often escape if our resisting power is normal. In order to have this so, the most important thing is to breathe an abundance of fresh air day and night. The school room should always be well ventilated, and the parents should leave the children's sleeping room open. Sanitary privies for the proper disposal of body discharges should be on the grounds.

The drinking water should be from a pump or an artesian well. Surface well water is liable to cause typhoid fever and other intestinal diseases. Each child should have a drinking cup which can be hung on a nail. This will prevent the spread of colds, measles, diphtheria, scarlet fever, typhoid fever, whooping cough, and consumption. Each child should have a single desk. At least two periods each week should be devoted to instructing the children about disease prevention.

As Dr. Rosenau truly says, "Preventive medicine is the watch-word of the hour and enlistment in the cause can come only through education."

The teacher will meet with skepticism and sometimes ridicule, but she should remember that "the soft tongue breaketh the bone." She is fighting for the welfare of the community and the result of her labors will certainly come.

A Few Things to Be Remembered.

A sanitary closet costs less than a case of typhoid fever.

Screening the house may cost $30.00 or $40.00, but a coffin costs more. It will prevent malarial fever and typhoid fever.

Pure drinking water is insurance against sickness.

Fresh air costs nothing but is worth everything. We need as much of it in winter as in summer.

If you wish to find out how to prevent disease, write to The State Board of Health, Columbia, S. C.

WRITING.

An extended observation of the writing in the schools of South Carolina has convinced me that this very necessary and useful art is being sadly neglected. The written exercises of the pupils are frequently almost illegible, and usually the writing is a slow and painful process.

Writing, like spelling, speaks for itself. The inability to write a good hand is a defect in education which cannot be concealed. The subject should receive more serious attention by all the teachers of South Carolina, and especially by those in the rural schools.

The teacher of writing should have three aims constantly before her.

1. She should endeavor to impress the correct form of the letter so indelibly upon the mind of the child that he may at least know when he is writing well and when he is writing poorly.

2. She should endeavor to develop correct position and correct movement of the arm in writing so that the work may be done with ease.

3. She should develop skill and speed in the use of the pen.

The child should begin to write as soon as he enters school. The first lessons in writing should be conducted at the black-

board where the child should copy words or sentences written in a large, round hand by the teacher. Writing at the board makes it almost necessary for the child to use the full arm movement which is so desirable for ease and speed. The writing at the seat during the first year should be with a large pencil on unruled paper. Here again the writing should be large enough to prevent a cramped finger movement.

The teacher's own handwriting will set the standard for the pupils and will influence their penmanship all their lives. The teacher should, therefore, develop for the school room at least a clear, round hand which she is willing for her pupils to imitate.

Writing Book Number I is introduced in the second grade, and in the latter half of this grade the pupil may begin the use of pen and ink. If teachers in the sixth and seventh grades find one copy book insufficient for the year, they may use Numbers V and VI in the sixth grade, and Numbers VII and VIII in the seventh grade.

The drill in writing should by no means be confined to the copy book. Before beginning the copy book exercise there should be first a drill in free arm movement and this should be followed by a practice on the copy of the day on blank writing paper. When the pupil has in this way secured a certain amount of correctness and ease in writing the copy, it should be written in the copy book. The copy book itself should serve as a record of the pupil's progress rather than a basis for practice.

In every written exercise the teacher should emphasize correct penmanship. It does very little good to have a pupil practice writing well a few minutes each day and then fix a habit of poor writing by carelessness in his other written exercises. No more written work should be given than the pupils can write well. The practice of assigning quantities of written work for school punishment is especially to be condemned.

The teachers of a township may sometimes secure a special effort in penmanship by exchanging exhibits of writing with each other. The penmanship of the county should be prominent in the county exhibit.

B. D. Berry & Company of Chicago, Ill., the publishers of the adopted series of writing books, will shortly issue a manual containing special suggestions for teachers of penmanship. Every

teacher in South Carolina should write for a copy of this manual.

DRAWING.

The Augsburg Drawing Tablets, published by the Educational Publishing Company, and the Applied Arts Drawing Books, published by Atkinson-Mentzer & Grover, have been adopted by the State Board of Education for use in the Schools of South Carolina as indicated in the course of study. These companies publish complete manuals of suggestions to teachers of drawing.

Teachers who are using Augsburg Tablets for the first, second, or third year should write to the Pool & Isely Co., of Atlanta, Ga., for a copy of Augsburg's Teachers' Manual, Book I and Augsburg's Lesson Outlines. Teachers who are using the tablets for the fourth, fifth, and sixth years should write to the Pool & Isely Co., Atlanta, Ga., for Augsburg's Teachers' Manual, Book II and Augsburg's Lesson Outlines. These books contain complete instructions for each week's work in the Drawing course, for both drawing and color work. They will be mailed free to any teacher in South Carolina whose pupils use Augsburg's Drawing Tablets.

All teachers whose pupils use the Applied Arts Drawing Books should write the Atkinson-Mentzer & Grover Co., Chicago, Ill., and request a copy of their manual. It will be mailed free of charge.

Teachers should also write to President D. B. Johnson of Winthrop College and request a copy of the very excellent bulletin on Drawing and Manual Training issued by the College.

HOMEMAKING AND DOMESTIC SCIENCE.

One of the most important services which a teacher can render to the community in which she works is to stimulate the natural impulses of the girls in her school towards the improvement of the home. In the course of study, it will be noted that cooking is optional. Perhaps not many schools at present will introduce a course in cooking. It can be more easily done than the teacher will imagine. If the school has the work-room described earlier in this Manual, a cook stove and a few necessary utensils may be gathered at the school house itself. This, however, is not necessary. Excellent work has been done by teachers who have simply organized "Homemakers Clubs" among the larger girls

and have encouraged them to meet at their own homes and follow out the suggestions of the teacher, or the directions which have come from the supervisor of the work for the State. Winthrop College is performing no greater service to the State of South Carolina than that embodied in the "Practice Home". Teachers of the State should write to Miss Carrie B. Hyde, Winthrop College, for information about the "Homemakers' Club" and should secure from the college the bulletins relating to domestic science.

SUGGESTIONS FOR PLANNING A LESSON.

Dr. Patterson Wardlaw, Professor of Pedagogy, University of South Carolina.

No lesson is so easy that you can afford to teach it without planning.

The time for planning a lesson is before its assignment to the pupils.

There are certain questions that you must settle before you are prepared to teach the lesson.

Ask yourself, "What is the purpose of this lesson? What, definitely, is the point to be made?" To get this clearly is the most important part of your preparation.

Purposes are of more than one kind.

1. Take first the case in which the purpose is to get the pupils to understand some general principle—a rule, definition, law or maxim. In this case you had better go over the ground with the class before assigning the lesson for study. Children in the elementary grades do not follow courses of reasoning in text-books.

Ask yourself, "What life-interest of the children can I harness to the truth of this lesson? What real problem of theirs can it be made to help them solve?"

Then, "What part of their present knowledge or acquirements must be used as a foundation on which to build the new lesson?"

Ask, "What objects or facts will best serve as examples, specimens, instances, samples of the principles which I am trying to teach? How best can these be presented so as to draw interest to that feature in which they all alike exemplify the point of the lesson?"

Next, "How can the pupils be led to work out a statement of this common feature—a statement that will be true for all the

examples?" This will be the principle that you are trying to teach—the point of your lesson.

Then, "What can I do to get the pupils everlastingly to apply the principle to new cases?" They are applying it if it enables them either to understand more facts or to do more jobs, in school or out. (One does not really know a truth until he can apply it.)

Then ask yourself, "How can I manage all this with a maximum of activity on the part of the pupils and a minimum of talk on the part of the teacher?"

Following the plan thus suggested, you should be able to give the class an understanding of the principle to be taught. Then assign the statement in the book for study, and give plenty of exercises in its application.

2. Let us take next the case in which the purpose of the lesson is, not comprehending a principle but grouping and remembering facts; for example, a narrative in history.

Ask yourself, "What is the picture or system of pictures which this lesson should lodge in the pupil's mind? How shall it be connected with his present interests and his present knowledge? How can it be made vivid, real, life-like? How much of this work shall be left for the text-book to do? What help do the pupils need for getting the thought of the text? To what parts of the lesson should the pupils be urged to pay special attention? When I tell them to study the lesson, what exactly do I want them to do?"

Teachers rarely think sufficiently of the last three questions. Take, for illustration, the spelling lesson. Do you mean for the pupil to spread his attention evenly over all the words and letters of the lesson or to pile it up on the only places on which an intelligent child need put attention? Suppose the lesson contains *goal*. If he is fit for this class, he will take for granted the *g* and the *l*. All that he needs to impress on his memory is *oa*. In *capsize*, the only danger point is *z*; in *excitable*, *a* and possibly *c*. In *virile*, he needs only to be warned not to be so reasonable as to leave off the senseless *e*. The same principle may be applied to most other studies.

If you have answered the above questions intelligently, you are ready to assign and teach the lesson. Permit one additional suggestion for the recitation itself: Keep this question always in the forefront of consciousness: "Do these words that the pupil is reciting represent a real image in his own mind?" For this,

the test is that he can tell the fact in his own language, can mention an example of the principle, or can put it into action.

Finally, here is the heart of the whole matter: *Let your teaching start from a felt need of life, proceed to general principles, and return with these to be lived in a larger world.*

HELPFUL BOOKS FOR ELEMENTARY TEACHERS.

Each year should witness an improvement in the teacher's work. Experience is one important element to this end. This is however not sufficient, and we should add to our own experience the thought and experience of the whole teaching profession as it is embodied in educational literature, and should thus apply the wisdom of many to the solution of our problems.

The following list of books is recommended as especially helpful to rural teachers and all others who may be looking for simple statements of pedagogical truth embodying distinctly practical suggestions.

Administration and Supervision.

Colgrove—"The Teacher and the School." Chas. Scribner's Sons, $1.25.

Gilbert—"The School and Its Life." Silver, Burdett & Co., $1.25.

Foght—"The American Rural School." The Macmillan Co., $1.25.

Perry—"Problems of the Elementary School." D. Appleton & Co.

Knorr—"Consolidated Rural Schools and Organization of a County System." (Free upon request directed to the United States Department of Agriculture, Washington, D. C.)

Knorr—"A Study of Fifteen Consolidated Schools." (Free) Southern Education Board, Washington, D. C.

Kern—"Among Country Schools."

Class Room Management.

Bagley—"Class-Room Management." The Macmillan Co., $1.25.

Seeley—"New School Management." Hinds, Noble & Eldredge, $1.25.

Dinsmore—"Teaching a District School." American Book Co., $1.00.

Hughes—"How to Keep Order." A. Flanagan Company, 15c.

Murphy—"Turning Points in Teaching." A. Flanagan Company; paper 30c, cloth 60c.

Branson—"Page's Theory and Practice of Teaching." American Book Co., $1.00.

Methods and Devices.

McMurry—"The Method of the Recitation." The Macmillan Company, 90c.

Arnold—"Plans for Busy Work." Silver, Burdett & Co., 50c.

Arnold—"Waymarks for Teachers." Silver, Burdett & Co., $1.25.

Hughes—"Mistakes in Teaching." A. Flanagan Company, 40c.

George—"Suggestions for Seat Work." A. Flanagan Company, 15c.

Reading and Language.

Arnold—"Reading—How to Teach It." Silver, Burdett & Co., $1.00.

Arnold—"Learning to Read." Silver, Burdett & Co., 36c.

Briggs & Coffman—"Reading in Public Schools." Row Peterson & Co.

Haliburton—"Phonics in Reading." B. F. Johnson & Co.

Spaulding & Bryce—"Learning to Read." Newson & Company, 60c.

Welch—"Literature in the School." Silver, Burdett & Co.

Chubb—"The Teaching of English." Macmillan & Company.

Smith—"Participle and Infinitive In-Ing." (Free) University of South Carolina.

Arithmetic.

Dunton—"Arithmetic in Primary Schools." Silver, Burdett & Co., $1.00.

McMurry—"Special Method in Arithmetic." The Macmillan Co., 70c.

Hall—"Arithmetic Primer."

Geography.

McMurry—"Special Method in Geography." The Macmillan Co., 70c.

History.

McMurry—"Special Method in History." The Macmillan Company, 75c.

Brigham—"Geographic Influences in American History."

Nature Study and Agriculture.

Hodge—"Nature Study and Life." Ginn & Company.

Holtz—"Nature Study." Chas. Scribner's Sons, $1.50.

"Boys' and Girls' Agricultural Clubs," "School Lessons on Corn," "School Exercises in Plant Production" and numerous other helpful Bulletins, may be obtained free on request to the Department of Agriculture, Washington, D. C.

Osterhout—"Experiments With Plants." The Macmillan Company, $1.25.

Bricker—"The Teaching of Agriculture in the High School." The Macmillan Company, $1.00.

Coulter and Patterson—"Practical Nature Study." D. Appleton & Company, $1.00.

Stories and Games.

Wyche—"Great Stories and How to Tell Them." Newson & Company, $1.00.

Bryant—"How to Tell Stories." Houghton, Mifflin & Company, $1.00.

Brancroft—"Games for the Playground, Home, School and Gymnasium." The Macmillan Company, $1.50.

School Hygiene.

Bulletins of State Board of Health.

Farmers' Bulletin No. 463. Department of Agriculture.

School Improvement Bulletin. (Free) on request directed to Clemson College.

Barry—"The Hygiene of the Schoolroom." Silver, Burdett & Co., $1.00.

Ogden—"Rural Hygiene." The Macmillan Company, $1.50.

Child Study and Moral Education.

Smith—"The Evolution of Dodd." Rand, McNally & Co., Chicago, 60c.

Sisson—"The Essentials of Character." The Macmillan Company, $1.00.

Tanner—"The Child." Rand, McNally & Co.

PROTECTION FROM FIRE.

B. A. Wharton, Deputy Insurance Commissioner.

The Insurance Department of South Carolina is making an earnest effort to reduce the fire waste in the State and thereby to reduce the cost of insurance. This department not only points out the conditions that are dangerous to the safety of property from a fire standpoint, but it earnestly seeks to protect life from this constantly menacing danger. To accomplish this end the Department is making a most earnest effort to have all public buildings, and especially school buildings, provided with adequate fire escapes. We feel that it is of the greatest importance that all public buildings two or more stories high, not fully provided with safe stairways, should be equipped with outside iron fire escapes, adequate to the demands of such buildings.

The constant practice of fire drills in all schools is an insurance against panic and should not be neglected or disregarded by any school. Many of the best schools in the State practice fire drills regularly. The fire drill practice and the placing of chemical fire extinguishers in all school buildings, together with adequate fire escapes, would not only be a great protection to the safety of property, but might be the means of saving many persons from a most horrible death.

This Department has also devoted much time to the study of the "Dangers and Chemistry" of fires. The fire waste in South Carolina could be greatly reduced if the people of the State would give the subject serious consideration. Space will not allow us to take up or discuss in detail the various causes of fire. I will, however, briefly state a few of the most frequent causes. The greater portion of the fire waste is due to carelessness, or to ignorance of the chemistry of fires. The careless handling of matches, the almost wicked custom of allowing children to scatter matches indiscriminately about the house and the premises, the common custom of distributing matches in all parts of the house for sake of convenience are all very dangerous to the safety of property. The universal use of the safety match would greatly reduce the fire waste and the cost of insurance.

The criminal wooden ash box should be condemned and metal ash receptacles should take their places. The untidiness of premises and the presence of waste paper, excelsior, trash and other rubbish cause many fires. Few people appreciate the fact that an additional rate of insurance is charged for "untidiness of premises."

The careless habit of kindling fires with the aid of kerosene oil is a very dangerous one and through it every year many lives are lost and thousands of dollars' worth of property destroyed. Gasoline on the hands of careless persons who do not know its dangers, is causing great loss of life and property. Another serious cause of fires is "spontaneous combustion." It is an established fact that greasy waste or oily rags cause many fires. The housewife or janitor who polishes the furniture or oils the floor, and throws the oily rags in the corner of the room or in the closet does not realize the great danger of fire from such a source, but many fires originate in this manner every year. I hope to see the day when the "Dangers and Chemistry of Fires" will be taught in every school in South Carolina. It would be the means of saving many lives and would greatly reduce the fire waste, and the cost of insurance.

TEN COMMANDMENTS IN SCHOOL MANAGEMENT.

1. Prepare yourself for your work. Know the subjects you are to teach, and know as thoroughly as possible the children who make up your school. Get acquainted with the parents so that you may have a true understanding of conditions and a basis of sympathy with your pupils.

2. Plan your work. You should have a copy of every book which you expect to teach, and should not go before your class without having made definite plans for the lessons you are to teach, and definite plans for the assignment of the new lesson.

3. Make definite assignments of lessons. Do not merely say, "Get the next lesson," but tell your pupils the nature of the preparation you expect them to make. Be sure that the assignment is short enough to enable the average pupil in the class to do the work without home assistance. Do not assign more work than your pupils can perform. To do so invites negligence. Teach your pupils how to study. It will prevent idleness and mischief.

4. Plan carefully the tactics of your school room. Devise a definite method of assembling and marching into the room, of passing to recitations, of passing to recess, and of doing other

things which make up the school routine. Do not allow your pupils, even at recess, to become disorderly in the school room. Reserve the outdoors for noise and play.

5. Do not make rules and affix penalties for their violation until the necessity arises. To do so merely suggests the offense to a pupil who might not otherwise have thought of it. Govern your school by management rather than by punishment. Especially avoid corporal punishment until all other remedies fail. This method of punishment brings dissension into the district and invites failure. It is sometimes necessary, but always as a last resort. Take the parents of the children into your full confidence as to your plans for management. Most of them wish their children to do right and are willing to assist you, if you ask them.

6. Never threaten your pupils with punishment. The threat is too often unfulfilled to be effective, and merely produces obstinacy.

7. Enlist the co-operation of the older pupils in the self-government of the school. Call on all the pupils to help you whenever you can do so. Our best friends are not those for whom we have done most, but those who have done most for us.

8. Mingle with your pupils on the playground and in their homes, but always preserve a certain dignity and reserve which will command their respect as well as their esteem.

9. Endeavor to arouse some worthy ambition in the heart of every pupil in your class. When you have done this, the question of management becomes relatively easy.

10. Bring to your work a cheerful, buoyant, and sympathetic spirit. A broad, deep human sympathy, and a wholesome optimism are two necessary elements in true culture. As you mingle with the men, the women, and the children of your school district, have joy in their worthy successes, respect for their honest failures, and forgiveness for their human frailties. Meet your own life and school problems with a smile of triumphant hopefulness.